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JULY 02, 2012

MR RICKEY VICKERS
PLANT MANAGER
MERICHEM COMPANY
2701 WARRIOR ROAD
TUSCALOOSA, AL 35404

RE: REVISED DRAFT PERMIT
NPDES PERMIT NUMBER: AL0025330

Dear Mr. Vickers:

Transmitted herein is a Revised Draft of the referenced permit.

We would appreciate your comments on the permit within **30 days** of the date of this letter. Please direct any comments of a technical or administrative nature to the undersigned.

By copy of this letter and the Revised Draft permit, we are also requesting comments within the same time frame from EPA.

The Alabama Department of Environmental Management encourages you to voluntarily consider pollution prevention practices and alternatives at your facility. Pollution Prevention may assist you in complying with effluent limitations, and possibly reduce or eliminate monitoring requirements.

Should you have any questions, please contact Wayne Holt by email at **wholt@adem.state.al.us** or by phone at **(334)371-7847**.

Sincerely,

A handwritten signature in black ink, appearing to read "ES", is written over a horizontal line.

Eric Sanderson, Chief
Industrial Section
Industrial/Municipal Branch
Water Division

Enclosure: Revised Draft Permit

pc via website: Montgomery Field Office
EPA Region IV
U.S. Fish & Wildlife Service
AL Historical Commission
Advisory Council on Historic Preservation
Department of Conservation and Natural Resources

Birmingham Branch
110 Vulcan Road
Birmingham, AL 35209-4702
(205) 942-6168
(205) 941-1603 (FAX)

Decatur Branch
2715 Sandlin Road, S. W.
Decatur, AL 35603-1333
(256) 353-1713
(256) 340-9359 (FAX)



Mobile Branch
2204 Perimeter Road
Mobile, AL 36615-1131
(251) 450-3400
(251) 479-2593 (FAX)

Mobile-Coastal
4171 Commanders Drive
Mobile, AL 36615-1421
(251) 432-6533
(251) 432-6598 (FAX)



NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM PERMIT

PERMITTEE: MERICHEM COMPANY

FACILITY LOCATION: 2701 WARRIOR ROAD
TUSCALOOSA, AL 35404

PERMIT NUMBER: AL0025330

RECEIVING WATERS: DSN001 – DSN003: BLACK WARRIOR RIVER
DSN006 - DSN008: BLACK WARRIOR RIVER

In accordance with and subject to the provisions of the Federal Water Pollution Control Act, as amended, 33 U.S.C. §§1251-1378 (the "FWPCA"), the Alabama Water Pollution Control Act, as amended, Code of Alabama 1975, §§ 22-22-1 to 22-22-14 (the "AWPCA"), the Alabama Environmental Management Act, as amended, Code of Alabama 1975, §§22-22A-1 to 22-22A-15, and rules and regulations adopted thereunder, and subject further to the terms and conditions set forth in this permit, the Permittee is hereby authorized to discharge into the above-named receiving waters.

ISSUANCE DATE: SEPTEMBER 2, 2009

EFFECTIVE DATE: OCTOBER 1, 2009

EXPIRATION DATE: SEPTEMBER 30, 2014

MODIFICATION ISSUED DATE:

MODIFICATION EFFECTIVE DATE:

Revised Draft

Alabama Department of Environmental Management

**INDUSTRIAL SECTION
NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM (NPDES) PERMIT**

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ATTACHMENT:

FORM 421 NON-COMPLIANCE NOTIFICATION FORM

PART I DISCHARGE LIMITATIONS, CONDITIONS, AND REQUIREMENTS**A. DISCHARGE LIMITATIONS AND MONITORING REQUIREMENTS**

During the period beginning on the effective date of this permit and lasting through the expiration date of this permit, the permittee is authorized to discharge from the following point source(s) outfall(s), described more fully in the permittee's application:

DSN001Q: Non-chlorinated, non-contact cooling water and stormwater runoff not associated with industrial activity 3/

Such discharge shall be limited and monitored by the permittee as specified below:

<u>EFFLUENT CHARACTERISTIC</u>	<u>DISCHARGE LIMITATIONS</u>					<u>MONITORING REQUIREMENTS 1/</u>		
	<u>Daily Maximum</u>	<u>Monthly Average</u>	<u>Daily Minimum</u>	<u>Daily Maximum</u>	<u>Monthly Average</u>	<u>Measurement Frequency 2/</u>	<u>Sample Type</u>	<u>Seasonal</u>
Temperature, Water Deg. Fahrenheit	-	-	-	REPORT F	-	Quarterly	Grab	-
pH	-	-	REPORT S.U.	REPORT S.U.	-	Quarterly	Grab	-
Solids, Total Suspended	-	-	-	REPORT mg/l	-	Quarterly	Grab	-
Oil and Grease	-	-	-	REPORT mg/l	-	Quarterly	Grab	-
Carbon, Tot Organic (TOC)	-	-	-	REPORT mg/l	-	Quarterly	Grab	-
Flow, In Conduit or Thru Treatment Plant	REPORT MGD	REPORT MGD	-	-	-	Quarterly	Instantaneous <u>4/</u>	-

**THE DISCHARGE SHALL HAVE NO SHEEN, AND THERE SHALL BE NO DISCHARGE OF
VISIBLE OIL, FLOATING SOLIDS OR VISIBLE FOAM IN OTHER THAN TRACE AMOUNTS.**

- 1/ Samples collected to comply with the monitoring requirements specified above shall be collected at the following location: At the nearest accessible location just prior to discharge and after final treatment. Unless otherwise specified, composite samples shall be time composite samples collected using automatic sampling equipment or a minimum of eight (8) equal volume grab samples collected over equal time intervals. All composite samples shall be collected for the total period of discharge not to exceed 24 hours.
- 2/ If only one sampling event occurs during a month, the sample result shall be reported on the discharge monitoring report as both the monthly average and daily maximum value for all parameters with a monthly average limitation.
- 3/ See Part IV.A. for Best Management Practices (BMP) Plan Requirements.
- 4/ See Part IV.B. for Stormwater Flow Measurement and Sampling Requirements.

During the period beginning on the effective date of this permit and lasting through the expiration date of this permit, the permittee is authorized to discharge from the following point source(s) outfall(s), described more fully in the permittee's application:

DSN002Q: Freshwater pond overflow and stormwater 3/

Such discharge shall be limited and monitored by the permittee as specified below:

<u>EFFLUENT CHARACTERISTIC</u>	<u>DISCHARGE LIMITATIONS</u>					<u>MONITORING REQUIREMENTS 1/</u>		
	<u>Daily Maximum</u>	<u>Monthly Average</u>	<u>Daily Minimum</u>	<u>Daily Maximum</u>	<u>Monthly Average</u>	<u>Measurement Frequency 2/</u>	<u>Sample Type</u>	<u>Seasonal</u>
Solids, Total Suspended	-	-	-	REPORT mg/l	-	Quarterly	Grab	-
Flow, In Conduit or Thru Treatment Plant	REPORT MGD	REPORT MGD	-	-	-	Quarterly	Instantaneous <u>4/</u>	-

**THE DISCHARGE SHALL HAVE NO SHEEN, AND THERE SHALL BE NO DISCHARGE OF
VISIBLE OIL, FLOATING SOLIDS OR VISIBLE FOAM IN OTHER THAN TRACE AMOUNTS.**

- 1/ Samples collected to comply with the monitoring requirements specified above shall be collected at the following location: At the nearest accessible location just prior to discharge and after final treatment. Unless otherwise specified, composite samples shall be time composite samples collected using automatic sampling equipment or a minimum of eight (8) equal volume grab samples collected over equal time intervals. All composite samples shall be collected for the total period of discharge not to exceed 24 hours.
- 2/ If only one sampling event occurs during a month, the sample result shall be reported on the discharge monitoring report as both the monthly average and daily maximum value for all parameters with a monthly average limitation.
- 3/ See Part IV.A. for Best Management Practices (BMP) Plan Requirements.
- 4/ See Part IV.B. for Stormwater Flow Measurement and Sampling Requirements.

During the period beginning on the effective date of this permit and lasting through the expiration date of this permit, the permittee is authorized to discharge from the following point source(s) outfall(s), described more fully in the permittee's application:

DSN003Q: Stormwater from secondary containment areas associated with the manufacture of Naphthenic Acids and JeSOL-9 3/

Such discharge shall be limited and monitored by the permittee as specified below:

<u>EFFLUENT CHARACTERISTIC</u>	<u>DISCHARGE LIMITATIONS</u>					<u>MONITORING REQUIREMENTS 1/</u>		
	<u>Daily Maximum</u>	<u>Monthly Average</u>	<u>Daily Minimum</u>	<u>Daily Maximum</u>	<u>Monthly Average</u>	<u>Measurement Frequency 2/</u>	<u>Sample Type</u>	<u>Seasonal</u>
Sulfate (As S)	-	-	-	REPORT mg/l	-	Quarterly	Grab	-
pH	-	-	REPORT S.U.	REPORT S.U.	-	Quarterly	Grab	-
Oil and Grease	-	-	-	15 mg/l	-	Quarterly	Grab	-
Carbon, Tot Organic (TOC)	-	-	-	110 mg/l	-	Quarterly	Grab	-
Potassium, Total (As K)	-	-	-	REPORT mg/l	-	Quarterly	Grab	-
Cobalt, Total (As Co)	-	-	-	REPORT mg/l	-	Quarterly	Grab	-
Flow, In Conduit or Thru Treatment Plant	REPORT MGD	REPORT MGD	-	-	-	Quarterly	Instantaneous <u>4/</u>	-
Ammonia (As N) + Unionized Ammonia	-	-	-	REPORT mg/l	-	Quarterly	Grab	-

**THE DISCHARGE SHALL HAVE NO SHEEN, AND THERE SHALL BE NO DISCHARGE OF
VISIBLE OIL, FLOATING SOLIDS OR VISIBLE FOAM IN OTHER THAN TRACE AMOUNTS.**

- 1/ Samples collected to comply with the monitoring requirements specified above shall be collected at the following location: At the nearest accessible location just prior to discharge and after final treatment. Unless otherwise specified, composite samples shall be time composite samples collected using automatic sampling equipment or a minimum of eight (8) equal volume grab samples collected over equal time intervals. All composite samples shall be collected for the total period of discharge not to exceed 24 hours.
- 2/ If only one sampling event occurs during a month, the sample result shall be reported on the discharge monitoring report as both the monthly average and daily maximum value for all parameters with a monthly average limitation.
- 3/ See Part IV.A. for Best Management Practices (BMP) Plan Requirements.
- 4/ See Part IV.B. for Stormwater Flow Measurement and Sampling Requirements.

During the period beginning on the effective date of this permit and lasting through the expiration date of this permit, the permittee is authorized to discharge from the following point source(s) outfall(s), described more fully in the permittee's application:

DSN006Q: Stormwater associated with the production of metal naphthenates, JeSOL-9 and various catalysts 3/

Such discharge shall be limited and monitored by the permittee as specified below:

<u>EFFLUENT CHARACTERISTIC</u>	<u>DISCHARGE LIMITATIONS</u>					<u>MONITORING REQUIREMENTS 1/</u>		
	<u>Daily Maximum</u>	<u>Monthly Average</u>	<u>Daily Minimum</u>	<u>Daily Maximum</u>	<u>Monthly Average</u>	<u>Measurement Frequency 2/</u>	<u>Sample Type</u>	<u>Seasonal</u>
pH	-	-	REPORT S.U.	REPORT S.U.	-	Quarterly	Grab	-
Oil and Grease	-	-	-	15 mg/l	-	Quarterly	Grab	-
Carbon, Tot Organic (TOC)	-	-	-	110 mg/l	-	Quarterly	Grab	-
Magnesium, Total (As Mg)	-	-	-	REPORT mg/l	-	Quarterly	Grab	-
Potassium, Total (As K)	-	-	-	REPORT mg/l	-	Quarterly	Grab	-
Iron Total Recoverable	-	-	-	REPORT mg/l	-	Quarterly	Grab	-
Cobalt, Total (As Co)	-	-	-	REPORT mg/l	-	Quarterly	Grab	-
Copper Total Recoverable	-	-	-	REPORT mg/l	-	Quarterly	Grab	-

**THE DISCHARGE SHALL HAVE NO SHEEN, AND THERE SHALL BE NO DISCHARGE OF
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- 2/ If only one sampling event occurs during a month, the sample result shall be reported on the discharge monitoring report as both the monthly average and daily maximum value for all parameters with a monthly average limitation.
- 3/ See Part IV.A. for Best Management Practices (BMP) Plan Requirements.

During the period beginning on the effective date of this permit and lasting through the expiration date of this permit, the permittee is authorized to discharge from the following point source(s) outfall(s), described more fully in the permittee's application:

DSN006Q (continued): Stormwater associated with the production of metal naphthenates, JeSOL-9 and various catalysts 3/

Such discharge shall be limited and monitored by the permittee as specified below:

<u>EFFLUENT CHARACTERISTIC</u>	<u>DISCHARGE LIMITATIONS</u>					<u>MONITORING REQUIREMENTS 1/</u>		
	<u>Daily Maximum</u>	<u>Monthly Average</u>	<u>Daily Minimum</u>	<u>Daily Maximum</u>	<u>Monthly Average</u>	<u>Measurement Frequency 2/</u>	<u>Sample Type</u>	<u>Seasonal</u>
Flow, In Conduit or Thru Treatment Plant	REPORT MGD	REPORT MGD	-	-	-	Quarterly	Instantaneous <u>4/</u>	-
Ammonia (As N) + Unionized Ammonia	-	-	-	REPORT mg/l	-	Quarterly	Grab	-

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- 3/ See Part IV.A. for Best Management Practices (BMP) Plan Requirements.
- 4/ See Part IV.B. for Stormwater Flow Measurement and Sampling Requirements.

During the period beginning on the effective date of this permit and lasting through the expiration date of this permit, the permittee is authorized to discharge from the following point source(s) outfall(s), described more fully in the permittee's application:

DSN007Q: Stormwater associated with the production of metal naphthenates, JeSOL-9 and various catalysts 3/

Such discharge shall be limited and monitored by the permittee as specified below:

<u>EFFLUENT CHARACTERISTIC</u>	<u>DISCHARGE LIMITATIONS</u>					<u>MONITORING REQUIREMENTS 1/</u>		
	<u>Daily Maximum</u>	<u>Monthly Average</u>	<u>Daily Minimum</u>	<u>Daily Maximum</u>	<u>Monthly Average</u>	<u>Measurement Frequency 2/</u>	<u>Sample Type</u>	<u>Seasonal</u>
pH	-	-	REPORT S.U.	REPORT S.U.	-	Quarterly	Grab	-
Oil and Grease	-	-	-	15 mg/l	-	Quarterly	Grab	-
Phosphorus, Total (As P)	-	-	-	REPORT mg/l	-	Quarterly	Grab	-
Carbon, Tot Organic (TOC)	-	-	-	110 mg/l	-	Quarterly	Grab	-
Magnesium, Total (As Mg)	-	-	-	REPORT mg/l	-	Quarterly	Grab	-
Potassium, Total (As K)	-	-	-	REPORT mg/l	-	Quarterly	Grab	-
Iron Total Recoverable	-	-	-	REPORT mg/l	-	Quarterly	Grab	-
Cobalt, Total (As Co)	-	-	-	REPORT mg/l	-	Quarterly	Grab	-

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- 3/ See Part IV.A. for Best Management Practices (BMP) Plan Requirements.

During the period beginning on the effective date of this permit and lasting through the expiration date of this permit, the permittee is authorized to discharge from the following point source(s) outfall(s), described more fully in the permittee's application:

DSN007Q (continued): Stormwater associated with the production of metal naphthenates, JeSOL-9 and various catalysts 3/

Such discharge shall be limited and monitored by the permittee as specified below:

<u>EFFLUENT CHARACTERISTIC</u>	<u>DISCHARGE LIMITATIONS</u>					<u>MONITORING REQUIREMENTS 1/</u>		
	<u>Daily Maximum</u>	<u>Monthly Average</u>	<u>Daily Minimum</u>	<u>Daily Maximum</u>	<u>Monthly Average</u>	<u>Measurement Frequency 2/</u>	<u>Sample Type</u>	<u>Seasonal</u>
Molybdenum, Total (As Mo)	-	-	-	REPORT mg/l	-	Quarterly	Grab	-
Zinc Total Recoverable	-	-	-	REPORT mg/l	-	Quarterly	Grab	-
Copper Total Recoverable	-	-	-	REPORT mg/l	-	Quarterly	Grab	-
Flow, In Conduit or Thru Treatment Plant	REPORT MGD	REPORT MGD	-	-	-	Quarterly	Instantaneous <u>4/</u>	-
Ammonia (As N) + Unionized Ammonia	-	-	-	REPORT mg/kg	-	Quarterly	Grab	-

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- 2/ If only one sampling event occurs during a month, the sample result shall be reported on the discharge monitoring report as both the monthly average and daily maximum value for all parameters with a monthly average limitation.
- 3/ See Part IV.A. for Best Management Practices (BMP) Plan Requirements.
- 4/ See Part IV.B. for Stormwater Flow Measurement and Sampling Requirements.

During the period beginning on the effective date of this permit and lasting through the expiration date of this permit, the permittee is authorized to discharge from the following point source(s) outfall(s), described more fully in the permittee's application:

DSN008Q: Stormwater associated with the production of metal naphthenates, JeSOL-9 and various catalysts 3/

Such discharge shall be limited and monitored by the permittee as specified below:

<u>EFFLUENT CHARACTERISTIC</u>	<u>DISCHARGE LIMITATIONS</u>					<u>MONITORING REQUIREMENTS 1/</u>		
	<u>Daily Maximum</u>	<u>Monthly Average</u>	<u>Daily Minimum</u>	<u>Daily Maximum</u>	<u>Monthly Average</u>	<u>Measurement Frequency 2/</u>	<u>Sample Type</u>	<u>Seasonal</u>
pH	-	-	REPORT S.U.	REPORT S.U.	-	Quarterly	Grab	-
Oil and Grease	-	-	-	15 mg/l	-	Quarterly	Grab	-
Carbon, Tot Organic (TOC)	-	-	-	110 mg/l	-	Quarterly	Grab	-
Magnesium, Total (As Mg)	-	-	-	REPORT mg/l	-	Quarterly	Grab	-
Potassium, Total (As K)	-	-	-	REPORT mg/l	-	Quarterly	Grab	-
Iron Total Recoverable	-	-	-	REPORT mg/l	-	Quarterly	Grab	-
Cobalt, Total (As Co)	-	-	-	REPORT mg/l	-	Quarterly	Grab	-
Copper Total Recoverable	-	-	-	REPORT mg/l	-	Quarterly	Grab	-

THE DISCHARGE SHALL HAVE NO SHEEN, AND THERE SHALL BE NO DISCHARGE OF VISIBLE OIL, FLOATING SOLIDS OR VISIBLE FOAM IN OTHER THAN TRACE AMOUNTS.

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- 3/ See Part IV.A. for Best Management Practices (BMP) Plan Requirements.

During the period beginning on the effective date of this permit and lasting through the expiration date of this permit, the permittee is authorized to discharge from the following point source(s) outfall(s), described more fully in the permittee's application:

DSN008Q (continued): Stormwater associated with the production of metal naphthenates, JeSOL-9 and various catalysts 3/

Such discharge shall be limited and monitored by the permittee as specified below:

<u>EFFLUENT</u> <u>CHARACTERISTIC</u>	<u>DISCHARGE LIMITATIONS</u>					<u>MONITORING REQUIREMENTS 1/</u>		
	<u>Daily</u> <u>Maximum</u>	<u>Monthly</u> <u>Average</u>	<u>Daily</u> <u>Minimum</u>	<u>Daily</u> <u>Maximum</u>	<u>Monthly</u> <u>Average</u>	<u>Measurement</u> <u>Frequency 2/</u>	<u>Sample Type</u>	<u>Seasonal</u>
Flow, In Conduit or Thru Treatment Plant	REPORT MGD	REPORT MGD	-	-	-	Quarterly	Instantaneous <u>4/</u>	-
Ammonia (As N) + Unionized Ammonia	-	-	-	REPORT mg/l	-	Quarterly	Grab	-

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- 2/ If only one sampling event occurs during a month, the sample result shall be reported on the discharge monitoring report as both the monthly average and daily maximum value for all parameters with a monthly average limitation.
- 3/ See Part IV.A. for Best Management Practices (BMP) Plan Requirements.
- 4/ See Part IV.B. for Stormwater Flow Measurement and Sampling Requirements.

B. DISCHARGE MONITORING AND RECORD KEEPING REQUIREMENTS

1. Representative Sampling

Samples and measurements taken as required herein shall be representative of the volume and nature of the monitored discharge and shall be in accordance with the provisions of this permit.

2. Test Procedures

For the purpose of reporting and compliance, permittees shall use one of the following procedures:

- a. For parameters with an EPA established Minimum Level (ML), report the measured value if the analytical result is at or above the ML and report "0" for values below the ML. Test procedures for the analysis of pollutants shall conform to 40 CFR Part 136 and guidelines published pursuant to Section 304(h) of the FWPCA, 33 U.S.C. Section 1314(h). If more than one method for analysis of a substance is approved for use, a method having a minimum level lower than the permit limit shall be used. If the minimum level of all methods is higher than the permit limit, the method having the lowest minimum level shall be used and a report of less than the minimum level shall be reported as zero and will constitute compliance, however should EPA approve a method with a lower minimum level during the term of this permit the permittee shall use the newly approved method.
- b. For pollutants parameters without an established ML, an interim ML may be utilized. The interim ML shall be calculated as 3.18 times the Method Detection Level (MDL) calculated pursuant to 40 CFR Part 136, Appendix B.

Permittees may develop an effluent matrix-specific ML, where an effluent matrix prevents attainment of the established ML. However, a matrix specific ML shall be based upon proper laboratory method and technique. Matrix-specific MLs must be approved by the Department, and may be developed by the permittee during permit issuance, reissuance, modification, or during compliance schedule.

In either case the measured value should be reported if the analytical result is at or above the ML and "0" reported for values below the ML.

- c. For parameters without an EPA established ML, interim ML, or matrix-specific ML, a report of less than the detection limit shall constitute compliance if the detection limit of all analytical methods is higher than the permit limit using the most sensitive EPA approved method. For the purpose of calculating a monthly average, "0" shall be used for values reported less than the detection limit.

The Minimum Level utilized for procedures A and B above shall be reported on the permittee's DMR. When an EPA approved test procedure for analysis of a pollutant does not exist, the Director shall approve the procedure to be used.

3. Recording of Results

For each measurement or sample taken pursuant to the requirements of this permit, the permittee shall record the following information:

- a. The facility name and location, point source number, date, time and exact place of sampling;
- b. The name(s) of person(s) who obtained the samples or measurements;
- c. The dates and times the analyses were performed;
- d. The name(s) of the person(s) who performed the analyses;
- e. The analytical techniques or methods used, including source of method and method number; and
- f. The results of all required analyses.

4. Records Retention and Production

The permittee shall retain records of all monitoring information, including all calibration and maintenance records and all original strip chart recordings for continuous monitoring instrumentation, copies of all reports required by the permit, and records of all data used to complete the above reports or the application for this permit, for a period of at least three years from the date of the sample measurement, report or application. This period may be extended by request of the Director at any time. If litigation or other enforcement action, under the AWPCA and/or the FWPCA, is ongoing which involves any of the above records, the records shall be kept until the litigation is resolved. Upon the written request of the Director or his designee, the permittee shall provide the Director with a copy of any record required to be retained by this paragraph. Copies of these records shall not be submitted unless requested.

All records required to be kept for a period of three years shall be kept at the permitted facility or an alternate location approved by the Department in writing and shall be available for inspection.

5. Monitoring Equipment and Instrumentation

All equipment and instrumentation used to determine compliance with the requirements of this permit shall be installed, maintained, and calibrated in accordance with the manufacturer's instructions or, in the absence of manufacturer's instructions, in accordance with accepted practices. The permittee shall develop and maintain quality assurance procedures to ensure proper operation and maintenance of all equipment and instrumentation. The quality assurance procedures shall include the proper use, maintenance, and installation, when appropriate, of monitoring equipment at the plant site.

C. DISCHARGE REPORTING REQUIREMENTS

I. Reporting of Monitoring Requirements

- a. The permittee shall conduct the required monitoring in accordance with the following schedule:

MONITORING REQUIRED MORE FREQUENTLY THAN MONTHLY AND MONTHLY shall be conducted during the first full month following the effective date of coverage under this permit and every month thereafter.

QUARTERLY MONITORING shall be conducted at least once during each calendar quarter. Calendar quarters are the periods of January through March, April through June, July through September, and October through December. The permittee shall conduct the quarterly monitoring during the first complete calendar quarter following the effective date of this permit and is then required to monitor once during each quarter thereafter. Quarterly monitoring may be done anytime during the quarter, unless restricted elsewhere in this permit, but it should be submitted with the last DMR due for the quarter, i.e. (March, June, September and December DMRs).

SEMIANNUAL MONITORING shall be conducted at least once during the period of January through June and at least once during the period of July through December. The permittee shall conduct the semiannual monitoring during the first complete calendar semiannual period following the effective date of this permit and is then required to monitor once during each semiannual period thereafter. Semiannual monitoring may be done anytime during the semiannual period, unless restricted elsewhere in this permit, but it should be submitted with the last DMR due for the month of the semiannual period, i.e. (June and December DMRs).

ANNUAL MONITORING shall be conducted at least once during the period of January through December. The permittee shall conduct the annual monitoring during the first complete calendar annual period following the effective date of this permit and is then required to monitor once during each annual period thereafter. Annual monitoring may be done anytime during the year, unless restricted elsewhere in this permit, but it should be submitted with the December DMR.

- b. The permittee shall submit discharge monitoring reports (DMRs) on the forms provided by the Department and in accordance with the following schedule:

REPORTS OF MORE FREQUENTLY THAN MONTHLY AND MONTHLY TESTING shall be submitted on a [monthly] or [quarterly] basis. The first report is due on the 28th day of []. The reports shall be submitted so that they are received by the Department no later than the 28th day of the month following the reporting period.

REPORTS OF QUARTERLY TESTING shall be submitted on a quarterly basis. The first report is due on the 28th day of []. The reports shall be submitted so that they are received by the Department no later than the 28th day of the month following the reporting period.

REPORTS OF SEMIANNUAL TESTING shall be submitted on a semiannual basis. The reports are due on the 28th day of JANUARY and the 28th day of JULY. The reports shall be submitted so that they are received by the Department no later than the 28th day of the month following the reporting period.

REPORTS OF ANNUAL TESTING shall be submitted on an annual basis. The first report is due on the 28th day of JANUARY. The reports shall be submitted so that they are received by the Department no later than the 28th day of the month following the reporting period.

- c. The Department is utilizing a web-based electronic environmental (E2) reporting system for submittal of DMRs. The E2 DMR system allows ADEM to electronically validate, acknowledge receipt, and upload data to the state's central wastewater database. This improves the accuracy of reported compliance data and reduces costs to both the regulated community and ADEM. If the Permittee is not already participating in the E2 DMR system, **the Permittee must apply for participation in the E2 DMR system within 180 days of the effective date of this permit unless valid**

justification as to why they cannot participate is submitted in writing. After 180 days hard copy DMRs may be used only with written approval from the Department. To participate in the E2 DMR system, the Permittee Participation Package may be downloaded online at <https://e2.adem.alabama.gov/npdes>. If a permittee is allowed to submit via the US Postal Service, the DMR must be legible and bear an original signature. Photo and electronic copies of the signature are not acceptable and shall not satisfy the reporting requirements of this permit. If the Permittee, using approved analytical methods as specified in Provision I.B.2. monitors any discharge from a point source for a substance identified in Provision I.A of this permit more frequently than required by this permit, the results of such monitoring shall be included in the calculation and reporting of values on the DMR Form and the increased frequency shall be indicated on the DMR Form. In the event no discharge from a point source identified in Provision I.A of this permit and described more fully in the Permittee's application occurs during a monitoring period, the Permittee shall report "No Discharge" for such period on the appropriate DMR Form.

- d. All reports and forms required to be submitted by this permit, the AWPCA and the Department's Rules and regulations, shall be electronically signed (or, if allowed by the Department, traditionally signed) by a "responsible official" of the permittee as defined in ADEM Administrative Code Rule 335-6-6-.09 or a "duly authorized representative" of such official as defined in ADEM Administrative Code Rule 335-6-6-.09 and shall bear the following certification:

"I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations."

- e. The permittee may certify in writing that a discharge will not occur for an extended period of time and after such certification shall not be required to submit monitoring reports. Written notification of a planned resumption of discharge shall be submitted at least 30 days prior to resumption of the discharge. If an unplanned resumption of discharge occurs, written notification shall be submitted within 7 days of the resumption. In any case, all discharges shall comply with all provisions of this permit.
- f. All Discharge Monitoring Report forms required to be submitted by this permit, the AWPCA and the Department's Rules, shall be addressed to:

**Alabama Department of Environmental Management
Permits and Services Division
Environmental Data Section
Post Office Box 301463
Montgomery, Alabama 36130-1463**

Certified and Registered Mail containing Discharge Monitoring Reports shall be addressed to:

**Alabama Department of Environmental Management
Permits and Services Division
Environmental Data Section
1400 Coliseum Boulevard
Montgomery, Alabama 36110-2059**

- g. All other correspondence and reports required to be submitted by this permit, the AWPCA and the Department's Rules, shall be addressed to:

**Alabama Department of Environmental Management
Water Division
Post Office Box 301463
Montgomery, Alabama 36130-1463**

Certified and Registered Mail shall be addressed to:

**Alabama Department of Environmental Management
Water Division
1400 Coliseum Boulevard
Montgomery, Alabama 36110-2059**

- h. If this permit is a reissuance, then the permittee shall continue to submit DMRs in accordance with the requirements of their previous permit until such time as DMRs are due as discussed in Part I.C.1.b. above.

2. Noncompliance Notification

a. 24-Hour Noncompliance Reporting

The permittee shall report to the Director, within 24-hours of becoming aware of any noncompliance which may endanger health or the environment. This shall include but is not limited to the following circumstances:

- (1) does not comply with any daily minimum or maximum discharge limitation for an effluent characteristic specified in Provision I. A. of this permit which is denoted by an "(X)",
- (2) threatens human health or welfare, fish or aquatic life, or water quality standards,
- (3) does not comply with an applicable toxic pollutant effluent standard or prohibition established under Section 307(a) of the FWPCA, 33 U.S.C. Section 1317(a),
- (4) contains a quantity of a hazardous substance which has been determined may be harmful to public health or welfare under Section 311(b)(4) of the FWPCA, 33 U.S.C. Section 1321(b)(4),
- (5) exceeds any discharge limitation for an effluent characteristic as a result of an unanticipated bypass or upset, and
- (6) is an unpermitted direct or indirect discharge of a pollutant to a water of the state (unpermitted discharges properly reported to the Department under any other requirement are not required to be reported under this provision).

The permittee shall orally report the occurrence and circumstances of such discharge to the Director within 24-hours after the permittee becomes aware of the occurrence of such discharge. In addition to the oral report, the permittee shall submit to the Director or Designee a written report as provided in Part I.C.2.c. no later than five (5) days after becoming aware of the occurrence of such discharge.

- b. If for any reason, the permittee's discharge does not comply with any limitation of this permit, the permittee shall submit to the Director or Designee a written report as provided in Part I.C.2.c. below, such report shall be submitted with the next Discharge Monitoring Report required to be submitted by Part I.C.1. of this permit after becoming aware of the occurrence of such noncompliance.

- c. Any written report required to be submitted to the Director or Designee by Part I.C.2 a. or b. shall be submitted using a copy of the Noncompliance Notification Form provided with this permit and shall include the following information:

- (1) A description of the discharge and cause of noncompliance;
- (2) The period of noncompliance, including exact dates and times or, if not corrected, the anticipated time the noncompliance is expected to continue; and
- (3) A description of the steps taken and/or being taken to reduce or eliminate the noncomplying discharge and to prevent its recurrence.

D. OTHER REPORTING AND NOTIFICATION REQUIREMENTS

1. Anticipated Noncompliance

The permittee shall give the Director written advance notice of any planned changes or other circumstances regarding a facility which may result in noncompliance with permit requirements.

2. Termination of Discharge

The permittee shall notify the Director, in writing, when all discharges from any point source(s) identified in Provision I. A. of this permit have permanently ceased. This notification shall serve as sufficient cause for instituting procedures for modification or termination of the permit.

3. Updating Information

- a. The permittee shall inform the Director of any change in the permittee's mailing address or telephone number or in the permittee's designation of a facility contact or office having the authority and responsibility to prevent and abate violations of the AWPCA, the Department's Rules and the terms and conditions of this permit, in writing, no later than ten (10) days after such change. Upon request of the Director or his designee, the permittee shall furnish the Director with an update of any information provided in the permit application.

- b. If the permittee becomes aware that it failed to submit any relevant facts in a permit application, or submitted incorrect information in a permit application or in any report to the Director, it shall promptly submit such facts or information with a written explanation for the mistake and/or omission.

4. Duty to Provide Information

The permittee shall furnish to the Director, within a reasonable time, any information which the Director or his designee may request to determine whether cause exists for modifying, revoking and re-issuing, suspending, or terminating this permit, in whole or in part, or to determine compliance with this permit.

5. Cooling Water and Boiler Water Additives

- a. The permittee shall notify the Director in writing not later than thirty (30) days prior to instituting the use of any biocide corrosion inhibitor or chemical additive in a cooling or boiler system, not identified in the application for this permit, from which discharge is allowed by this permit. Notification is not required for additives that do not contain a heavy metal(s) as an active ingredient and that pass through a wastewater treatment system prior to discharge nor is notification required for additives that should not reasonably be expected to cause the cooling water or boiler water to exhibit toxicity as determined by analysis of manufacturer's data or testing by the permittee. Such notification shall include:

- (1) name and general composition of biocide or chemical,
- (2) 96-hour median tolerance limit data for organisms representative of the biota of the waterway into which the discharge will ultimately reach,
- (3) quantities to be used,
- (4) frequencies of use,
- (5) proposed discharge concentrations, and
- (6) EPA registration number, if applicable.

- b. The use of a biocide or additive containing tributyl tin, tributyl tin oxide, zinc, chromium or related compounds in cooling or boiler system(s), from which a discharge regulated by this permit occurs, is prohibited except as exempted below. The use of a biocide or additive containing zinc, chromium or related compounds may be used in special circumstances if (1) the permit contains limits for these substances, or (2) the applicant demonstrates during the application process that the use of zinc, chromium or related compounds as a biocide or additive will not pose a reasonable potential to violate the applicable State water quality standards for these substances. The use of any additive, not identified in this permit or in the application for this permit or not exempted from notification under this permit is prohibited, prior to a determination by the Department that permit modification to control discharge of the additive is not required or prior to issuance of a permit modification controlling discharge of the additive.

6. Permit Issued Based On Estimated Characteristics

- a. If this permit was issued based on estimates of the characteristics of a process discharge reported on an EPA NPDES Application Form 2D (EPA Form 3510-2D), the permittee shall complete and submit an EPA NPDES Application Form 2C (EPA Form 3510-2C) no later than two years after the date that discharge begins. Sampling required for completion of the Form 2C shall occur when a discharge(s) from the process(s) causing the new or increased discharge is occurring. If this permit was issued based on estimates concerning the composition of a stormwater discharge(s), the permittee shall perform the sampling required by EPA NPDES Application Form 2F (EPA Form 3510-2F) no later than one year after the industrial activity generating the stormwater discharge has been fully initiated.
- b. This permit shall be reopened if required to address any new information resulting from the completion and submittal of the Form 2C and or 2F.

E. SCHEDULE OF COMPLIANCE

- 1. The permittee shall achieve compliance with the discharge limitations specified in Provision I. A. in accordance with the following schedule:

COMPLIANCE SHALL BE ATTAINED ON THE EFFECTIVE DATE OF THIS PERMIT

- 2. No later than 14 calendar days following a date identified in the above schedule of compliance, the permittee shall submit either a report of progress or, in the case of specific actions being required by identified dates, a written notice of compliance or noncompliance. In the latter case, the notice shall include the cause of noncompliance, any remedial actions taken, and the probability of meeting the next scheduled requirement.

PART II OTHER REQUIREMENTS, RESPONSIBILITIES, AND DUTIES

A. OPERATIONAL AND MANAGEMENT REQUIREMENTS

1. Facilities Operation and Maintenance

The permittee shall at all times properly operate and maintain all facilities and systems of treatment and control (and related appurtenances) which are installed or used by the permittee to achieve compliance with the conditions of the permit. Proper operation and maintenance includes effective performance, adequate funding, adequate operator staffing and training, and adequate laboratory and process controls, including appropriate quality assurance procedures. This provision requires the operation of backup or auxiliary facilities only when necessary to achieve compliance with the conditions of the permit.

2. Best Management Practices

- a. Dilution water shall not be added to achieve compliance with discharge limitations except when the Director or his designee has granted prior written authorization for dilution to meet water quality requirements.
- b. The permittee shall prepare, implement, and maintain a Spill Prevention, Control and Countermeasures (SPCC) Plan in accordance with 40 C.F.R. Section 112 if required thereby.
- c. The permittee shall prepare, submit for approval and implement a Best Management Practices (BMP) Plan for containment of any or all process liquids or solids, in a manner such that these materials do not present a significant potential for discharge, if so required by the Director or his designee. When submitted and approved, the BMP Plan shall become a part of this permit and all requirements of the BMP Plan shall become requirements of this permit.

3. Spill Prevention, Control, and Management

The permittee shall provide spill prevention, control, and/or management sufficient to prevent any spills of pollutants from entering a water of the state or a publicly or privately owned treatment works. Any containment system used to implement this requirement shall be constructed of materials compatible with the substance(s) contained and which shall prevent the contamination of groundwater and such containment system shall be capable of retaining a volume equal to 110 percent of the capacity of the largest tank for which containment is provided.

B. OTHER RESPONSIBILITIES

1. Duty to Mitigate Adverse Impacts

The permittee shall promptly take all reasonable steps to mitigate and minimize or prevent any adverse impact on human health or the environment resulting from noncompliance with any discharge limitation specified in Provision I. A. of this permit, including such accelerated or additional monitoring of the discharge and/or the receiving waterbody as necessary to determine the nature and impact of the noncomplying discharge.

2. Right of Entry and Inspection

The permittee shall allow the Director, or an authorized representative, upon the presentation of proper credentials and other documents as may be required by law to:

- a. enter upon the permittee's premises where a regulated facility or activity or point source is located or conducted, or where records must be kept under the conditions of the permit;
- b. have access to and copy, at reasonable times, any records that must be kept under the conditions of the permit;
- c. inspect any facilities, equipment (including monitoring and control equipment), practices, or operations regulated or required under the permit; and
- d. sample or monitor, for the purposes of assuring permit compliance or as otherwise authorized by the AWPCA, any substances or parameters at any location.

C. BYPASS AND UPSET

1. Bypass

- a. Any bypass is prohibited except as provided in b. and c. below:

- b. A bypass is not prohibited if:
 - (1) It does not cause any discharge limitation specified in Provision I. A. of this permit to be exceeded;
 - (2) It enters the same receiving stream as the permitted outfall and;
 - (3) It is necessary for essential maintenance of a treatment or control facility or system to assure efficient operation of such facility or system.
- c. A bypass is not prohibited and need not meet the discharge limitations specified in Provision I. A. of this permit if:
 - (1) It is unavoidable to prevent loss of life, personal injury, or severe property damage;
 - (2) There are no feasible alternatives to the bypass, such as the use of auxiliary treatment facilities, retention of untreated wastes, or maintenance during normal periods of equipment downtime (this condition is not satisfied if adequate back-up equipment should have been installed in the exercise of reasonable engineering judgment to prevent a bypass which occurred during normal periods of equipment downtime or preventive maintenance); and
 - (3) The permittee submits a written request for authorization to bypass to the Director at least ten (10) days prior to the anticipated bypass (if possible), the permittee is granted such authorization, and the permittee complies with any conditions imposed by the Director to minimize any adverse impact on human health or the environment resulting from the bypass.
- d. The permittee has the burden of establishing that each of the conditions of Provision II.C.1.b. or c. have been met to qualify for an exception to the general prohibition against bypassing contained in a. and an exemption, where applicable, from the discharge limitations specified in Provision I. A. of this permit.

2. Upset

- a. A discharge which results from an upset need not meet the discharge limitations specified in Provision I. A. of this permit if:
 - (1) No later than 24-hours after becoming aware of the occurrence of the upset, the permittee orally reports the occurrence and circumstances of the upset to the Director or his designee; and
 - (2) No later than five (5) days after becoming aware of the occurrence of the upset, the permittee furnishes the Director with evidence, including properly signed, contemporaneous operating logs, or other relevant evidence, demonstrating that (i) an upset occurred; (ii) the permittee can identify the specific cause(s) of the upset; (iii) the permittee's facility was being properly operated at the time of the upset; and (iv) the permittee promptly took all reasonable steps to minimize any adverse impact on human health or the environment resulting from the upset.
- b. The permittee has the burden of establishing that each of the conditions of Provision II. C.2.a. of this permit have been met to qualify for an exemption from the discharge limitations specified in Provision I.A. of this permit.

D. DUTY TO COMPLY WITH PERMIT, RULES, AND STATUTES

1. Duty to Comply

- a. The permittee must comply with all conditions of this permit. Any permit noncompliance constitutes a violation of the AWPCA and the FWPCA and is grounds for enforcement action, for permit termination, revocation and reissuance, suspension, modification; or denial of a permit renewal application.
- b. The necessity to halt or reduce production or other activities in order to maintain compliance with the conditions of the permit shall not be a defense for a permittee in an enforcement action.
- c. The discharge of a pollutant from a source not specifically identified in the permit application for this permit and not specifically included in the description of an outfall in this permit is not authorized and shall constitute noncompliance with this permit.
- d. The permittee shall take all reasonable steps, including cessation of production or other activities, to minimize or prevent any violation of this permit or to minimize or prevent any adverse impact of any permit violation.
- e. Nothing in this permit shall be construed to preclude and negate the permittee's responsibility or liability to apply for, obtain, or comply with other ADEM, Federal, State, or Local Government permits, certifications, licenses, or other approvals.

2. Removed Substances

Solids, sludges, filter backwash, or any other pollutant or other waste removed in the course of treatment or control of wastewaters shall be disposed of in a manner that complies with all applicable Department Rules.

3. Loss or Failure of Treatment Facilities

Upon the loss or failure of any treatment facilities, including but not limited to the loss or failure of the primary source of power of the treatment facility, the permittee shall, where necessary to maintain compliance with the discharge limitations specified in Provision I. A. of this permit, or any other terms or conditions of this permit, cease, reduce, or otherwise control production and/or all discharges until treatment is restored. If control of discharge during loss or failure of the primary source of power is to be accomplished by means of alternate power sources, standby generators, or retention of inadequately treated effluent, the permittee must furnish to the Director within six months a certification that such control mechanisms have been installed.

4. Compliance with Statutes and Rules

- a. This permit has been issued under ADEM Administrative Code, Chapter 335-6-6. All provisions of this chapter, that are applicable to this permit, are hereby made a part of this permit. A copy of this chapter may be obtained for a small charge from the Office of General Counsel, Alabama Department of Environmental Management, 1400 Coliseum Blvd., Montgomery, AL 36130.
- b. This permit does not authorize the noncompliance with or violation of any Laws of the State of Alabama or the United States of America or any regulations or rules implementing such laws. FWPCA, 33 U.S.C. Section 1319, and Code of Alabama 1975, Section 22-22-14.

E. PERMIT TRANSFER, MODIFICATION, SUSPENSION, REVOCATION, AND REISSUANCE

1. Duty to Reapply or Notify of Intent to Cease Discharge

- a. If the permittee intends to continue to discharge beyond the expiration date of this permit, the permittee shall file a complete permit application for reissuance of this permit at least 180 days prior to its expiration. If the permittee does not intend to continue discharge beyond the expiration of this permit, the permittee shall submit written notification of this intent which shall be signed by an individual meeting the signatory requirements for a permit application as set forth in ADEM Administrative Code Rule 335-6-6-.09.
- b. Failure of the permittee to apply for reissuance at least 180 days prior to permit expiration will void the automatic continuation of the expiring permit provided by ADEM Administrative Code Rule 335-6-6-.06 and should the permit not be reissued for any reason any discharge after expiration of this permit will be an unpermitted discharge.

2. Change in Discharge

- a. The permittee shall apply for a permit modification at least 180 days in advance of any facility expansion, production increase, process change, or other action that could result in the discharge of additional pollutants or increase the quantity of a discharged pollutant such that existing permit limitations would be exceeded or that could result in an additional discharge point. This requirement applies to pollutants that are or that are not subject to discharge limitations in this permit. No new or increased discharge may begin until the Director has authorized it by issuance of a permit modification or a reissued permit.
- b. The permittee shall notify the Director as soon as it is known or there is reason to believe:
 - (1) That any activity has occurred or will occur which would result in the discharge on a routine or frequent basis, of any toxic pollutant which is not limited in this permit, if that discharge will exceed the highest of the following notification levels:
 - (a) one hundred micrograms per liter;
 - (b) two hundred micrograms per liter for acrolein and acrylonitrile; five hundred micrograms per liter for 2,4-dinitrophenol and for 2-methyl-4,6-dini-trophenol; and one milligram per liter for antimony;
 - (c) five times the maximum concentration value reported for that pollutant in the permit application; or
 - (2) That any activity has occurred or will occur which would result in any discharge, on a non-routine or infrequent basis, of a toxic pollutant which is not limited in the permit, if that discharge will exceed the highest of the following notification levels:
 - (a) five hundred micrograms per liter;
 - (b) one milligram per liter for antimony;

(c) ten times the maximum concentration value reported for that pollutant in the permit application.

3. Transfer of Permit

This permit may not be transferred or the name of the permittee changed without notice to the Director and subsequent modification or revocation and reissuance of the permit to identify the new permittee and to incorporate any other changes as may be required under the FWPCA or AWPCA. In the case of a change in name, ownership or control of the permittee's premises only, a request for permit modification in a format acceptable to the Director is required at least 30 days prior to the change. In the case of a change in name, ownership or control of the permittee's premises accompanied by a change or proposed change in effluent characteristics, a complete permit application is required to be submitted to the Director at least 180 days prior to the change. Whenever the Director is notified of a change in name, ownership or control, he may decide not to modify the existing permit and require the submission of a new permit application.

4. Permit Modification and Revocation

a. This permit may be modified or revoked and reissued, in whole or in part, during its term for cause, including but not limited to, the following:

- (1) If cause for termination under Provision II. E. 5. of this permit exists, the Director may choose to revoke and reissue this permit instead of terminating the permit;
- (2) If a request to transfer this permit has been received, the Director may decide to revoke and reissue or to modify the permit; or
- (3) If modification or revocation and reissuance is requested by the permittee and cause exists, the Director may grant the request.

b. This permit may be modified during its term for cause, including but not limited to, the following:

- (1) If cause for termination under Provision II. E. 5. of this permit exists, the Director may choose to modify this permit instead of terminating this permit;
- (2) There are material and substantial alterations or additions to the facility or activity generating wastewater which occurred after permit issuance which justify the application of permit conditions that are different or absent in the existing permit;
- (3) The Director has received new information that was not available at the time of permit issuance and that would have justified the application of different permit conditions at the time of issuance;
- (4) A new or revised requirement(s) of any applicable standard or limitation is promulgated under Sections 301(b)(2)(C), (D), (E), and (F), and 307(a)(2) of the FWPCA;
- (5) Errors in calculation of discharge limitations or typographical or clerical errors were made;
- (6) To the extent allowed by ADEM Administrative Code, Rule 335-6-6-.17, when the standards or regulations on which the permit was based have been changed by promulgation of amended standards or regulations or by judicial decision after the permit was issued;
- (7) To the extent allowed by ADEM Administrative Code, Rule 335-6-6-.17, permits may be modified to change compliance schedules;
- (8) To agree with a granted variance under 301(c), 301(g), 301(h), 301(k), or 316(a) of the FWPCA or for fundamentally different factors;
- (9) To incorporate an applicable 307(a) FWPCA toxic effluent standard or prohibition;
- (10) When required by the reopener conditions in this permit;
- (11) When required under 40 CFR 403.8(e) (compliance schedule for development of pretreatment program);
- (12) Upon failure of the state to notify, as required by Section 402(b)(3) of the FWPCA, another state whose waters may be affected by a discharge permitted by this permit;
- (13) When required to correct technical mistakes, such as errors in calculation, or mistaken interpretations of law made in determining permit conditions; or

- (14) When requested by the permittee and the Director determines that the modification has cause and will not result in a violation of federal or state law, regulations or rules; or

5. Permit Termination

This permit may be terminated during its term for cause, including but not limited to, the following:

- a. Violation of any term or condition of this permit;
- b. The permittee's misrepresentation or failure to disclose fully all relevant facts in the permit application or during the permit issuance process or the permittee's misrepresentation of any relevant facts at any time;
- c. Materially false or inaccurate statements or information in the permit application or the permit;
- d. A change in any condition that requires either a temporary or permanent reduction or elimination of the permitted discharge;
- e. The permittee's discharge threatens human life or welfare or the maintenance of water quality standards;
- f. Permanent closure of the facility generating the wastewater permitted to be discharged by this permit or permanent cessation of wastewater discharge;
- g. New or revised requirements of any applicable standard or limitation that is promulgated under Sections 301(b)(2)(C), (D), (E), and (F), and 307(a)(2) of the FWPCA that the Director determines cannot be complied with by the permittee.
- h. Any other cause allowed by the ADEM Administrative Code, Chapter 335-6-6.

6. Permit Suspension

This permit may be suspended during its term for noncompliance until the permittee has taken action(s) necessary to achieve compliance.

7. Request for Permit Action Does Not Stay Any Permit Requirement

The filing of a request by the permittee for modification, suspension or revocation of this permit, in whole or in part, does not stay any permit term or condition.

F. COMPLIANCE WITH TOXIC POLLUTANT STANDARD OR PROHIBITION

If any applicable effluent standard or prohibition (including any schedule of compliance specified in such effluent standard or prohibition) is established under Section 307(a) of the FWPCA, 33 U.S.C. Section 1317(a), for a toxic pollutant discharged by the permittee and such standard or prohibition is more stringent than any discharge limitation on the pollutant specified in Provision I. A. of this permit, or controls a pollutant not limited in Provision I. A. of this permit, this permit shall be modified to conform to the toxic pollutant effluent standard or prohibition and the permittee shall be notified of such modification. If this permit has not been modified to conform to the toxic pollutant effluent standard or prohibition before the effective date of such standard or prohibition, the permittee shall attain compliance with the requirements of the standard or prohibition within the time period required by the standard or prohibition and shall continue to comply with the standard or prohibition until this permit is modified or reissued.

G. DISCHARGE OF WASTEWATER GENERATED BY OTHERS

The discharge of wastewater, generated by any process, facility, or by any other means not under the operational control of the permittee or not identified in the application for this permit or not identified specifically in the description of an outfall in this permit is not authorized by this permit.

PART III OTHER PERMIT CONDITIONS

A. CIVIL AND CRIMINAL LIABILITY

1. Tampering

Any person who falsifies, tampers with, or knowingly renders inaccurate any monitoring device or method required to be maintained or performed under the permit shall, upon conviction, be subject to penalties as provided by the AWPCA.

2. False Statements

Any person who knowingly makes any false statement, representation, or certification in any record or other document submitted or required to be maintained under this permit, including monitoring reports or reports of compliance or noncompliance shall, upon conviction, be subject to penalties as provided by the AWPCA.

3. Permit Enforcement

- a. Any NPDES permit issued or reissued by the Department is a permit for the purpose of the AWPCA and the FWPCA and as such any terms, conditions, or limitations of the permit are enforceable under state and federal law.
- b. Any person required to have a NPDES permit pursuant to ADEM Administrative Code Chapter 335-6-6 and who discharges pollutants without said permit, who violates the conditions of said permit, who discharges pollutants in a manner not authorized by the permit, or who violates applicable orders of the Department or any applicable rule or standard of the Department, is subject to any one or combination of the following enforcement actions under applicable state statutes.
 - (1) An administrative order requiring abatement, compliance, mitigation, cessation, clean-up, and/or penalties;
 - (2) An action for damages;
 - (3) An action for injunctive relief; or
 - (4) An action for penalties.
- c. If the permittee is not in compliance with the conditions of an expiring or expired permit the Director may choose to do any or all of the following provided the permittee has made a timely and complete application for reissuance of the permit:
 - (1) initiate enforcement action based upon the permit which has been continued;
 - (2) issue a notice of intent to deny the permit reissuance. If the permit is denied, the owner or operator would then be required to cease the activities authorized by the continued permit or be subject to enforcement action for operating without a permit;
 - (3) reissue the new permit with appropriate conditions; or
 - (4) take other actions authorized by these rules and AWPCA.

4. Relief from Liability

Except as provided in Provision II. C. 1. (Bypass) and Provision II. C. 2. (Upset), nothing in this permit shall be construed to relieve the permittee of civil or criminal liability under the AWPCA or FWPCA for noncompliance with any term or condition of this permit.

B. OIL AND HAZARDOUS SUBSTANCE LIABILITY

Nothing in this permit shall be construed to preclude the institution of any legal action or relieve the permittee from any responsibilities, liabilities or penalties to which the permittee is or may be subject under Section 311 of the FWPCA, 33 U.S.C. Section 1321.

C. PROPERTY AND OTHER RIGHTS

This permit does not convey any property rights in either real or personal property, or any exclusive privileges, nor does it authorize any injury to persons or property or invasion of other private rights, trespass, or any infringement of federal, state, or local laws or regulations, nor does it authorize or approve the construction of any physical structures or facilities or the undertaking of any work in any waters of the state or of the United States.

D. AVAILABILITY OF REPORTS

Except for data determined to be confidential under Code of Alabama 1975, Section 22-22-9(c), all reports prepared in accordance with the terms of this permit shall be available for public inspection at the offices of the Department. Effluent data shall not be considered confidential.

E. EXPIRATION OF PERMITS FOR NEW OR INCREASED DISCHARGES

1. If this permit was issued for a new discharger or new source, this permit shall expire eighteen months after the issuance date if construction of the facility has not begun during the eighteen-month period.
2. If this permit was issued or modified to allow the discharge of increased quantities of pollutants to accommodate the modification of an existing facility and if construction of this modification has not begun during the eighteen month period after issuance of this permit or permit modification, this permit shall be modified to reduce the quantities of pollutants allowed to be discharged to those levels that would have been allowed if the modification of the facility had not been planned.
3. Construction has begun when the owner or operator has:
 - a. begun, or caused to begin as part of a continuous on-site construction program:
 - (1) any placement, assembly, or installation of facilities or equipment; or
 - (2) significant site preparation work including clearing, excavation, or removal of existing buildings, structures, or facilities which is necessary for the placement, assembly, or installation of new source facilities or equipment; or
 - b. entered into a binding contractual obligation for the purpose of placement, assembly, or installation of facilities or equipment which are intended to be used in its operation within a reasonable time. Options to purchase or contracts which can be terminated or modified without substantial loss, and contracts for feasibility, engineering, and design studies do not constitute a contractual obligation under the paragraph. The entering into a lease with the State of Alabama for exploration and production of hydrocarbons shall also be considered beginning construction.

F. COMPLIANCE WITH WATER QUALITY STANDARDS

1. On the basis of the permittee's application, plans, or other available information, the Department has determined that compliance with the terms and conditions of this permit should assure compliance with the applicable water quality standards.
2. Compliance with permit terms and conditions notwithstanding, if the permittee's discharge(s) from point sources identified in Provision I. A. of this permit cause or contribute to a condition in contravention of state water quality standards, the Department may require abatement action to be taken by the permittee in emergency situations or modify the permit pursuant to the Department's Rules, or both.
3. If the Department determines, on the basis of a notice provided pursuant to this permit or any investigation, inspection or sampling, that a modification of this permit is necessary to assure maintenance of water quality standards or compliance with other provisions of the AWPCA or FWPCA, the Department may require such modification and, in cases of emergency, the Director may prohibit the discharge until the permit has been modified.

G. GROUNDWATER

Unless specifically authorized by a permit issued by the Department, the discharge of pollutants to groundwater is prohibited. Should a threat of groundwater contamination occur, the Director may require groundwater monitoring to properly assess the degree of the problem and the Director may require that the permittee undertake measures to abate any such discharge and/or contamination.

H. DEFINITIONS

1. Average monthly discharge limitation - means the highest allowable average of "daily discharges" over a calendar month, calculated as the sum of all "daily discharges" measured during a calendar month divided by the number of "daily discharges" measured during that month (zero discharge days shall not be included in the number of "daily discharges" measured and a less than detectable test result shall be treated as a concentration of zero if the most sensitive EPA approved method was used).
2. Average weekly discharge limitation - means the highest allowable average of "daily discharges" over a calendar week, calculated as the sum of all "daily discharges" measured during a calendar week divided by the number of "daily discharges" measured during that week (zero discharge days shall not be included in the number of "daily discharges" measured and a less than detectable test result shall be treated as a concentration of zero if the most sensitive EPA approved method was used).

3. Arithmetic Mean – means the summation of the individual values of any set of values divided by the number of individual values.
4. AWPCA - means the Alabama Water Pollution Control Act.
5. BOD – means the five-day measure of the pollutant parameter biochemical oxygen demand.
6. Bypass - means the intentional diversion of waste streams from any portion of a treatment facility.
7. CBOD – means the five-day measure of the pollutant parameter carbonaceous biochemical oxygen demand.
8. Daily discharge - means the discharge of a pollutant measured during any consecutive 24-hour period in accordance with the sample type and analytical methodology specified by the discharge permit.
9. Daily maximum - means the highest value of any individual sample result obtained during a day.
10. Daily minimum - means the lowest value of any individual sample result obtained during a day.
11. Day - means any consecutive 24-hour period.
12. Department - means the Alabama Department of Environmental Management.
13. Director - means the Director of the Department.
14. Discharge - means "[t]he addition, introduction, leaking, spilling or emitting of any sewage, industrial waste, pollutant or other wastes into waters of the state". Code of Alabama 1975, Section 22-22-1(b)(8).
15. Discharge Monitoring Report (DMR) - means the form approved by the Director to accomplish reporting requirements of an NPDES permit.
16. DO – means dissolved oxygen.
17. 8HC – means 8-hour composite sample, including any of the following:
 - a. The mixing of at least 5 equal volume samples collected at constant time intervals of not more than 2 hours over a period of not less than 8 hours between the hours of 6:00 a.m. and 6:00 p.m. If the sampling period exceeds 8 hours, sampling may be conducted beyond the 6:00 a.m. to 6:00 p.m. period.
 - b. A sample continuously collected at a constant rate over period of not less than 8 hours between the hours of 6:00 a.m. and 6:00 p.m. If the sampling period exceeds 8 hours, sampling may be conducted beyond the 6:00 a.m. to 6:00 p.m. period.
18. EPA - means the United States Environmental Protection Agency.
19. FC – means the pollutant parameter fecal coliform.
20. Flow – means the total volume of discharge in a 24-hour period.
21. FWPCA - means the Federal Water Pollution Control Act.
22. Geometric Mean – means the Nth root of the product of the individual values of any set of values where N is equal to the number of individual values. The geometric mean is equivalent to the antilog of the arithmetic mean of the logarithms of the individual values. For purposes of calculating the geometric mean, values of zero (0) shall be considered one (1).
23. Grab Sample – means a single influent or effluent portion which is not a composite sample. The sample(s) shall be collected at the period(s) most representative of the discharge.
24. Indirect Discharger – means a nondomestic discharger who discharges pollutants to a publicly owned treatment works or a privately owned treatment facility operated by another person.
25. Industrial User – means those industries identified in the Standard Industrial Classification manual, Bureau of the Budget 1967, as amended and supplemented, under the category "Division D – Manufacturing" and such other classes of significant waste producers as, by regulation, the Director deems appropriate.
26. MGD – means million gallons per day.
27. Monthly Average – means, other than for fecal coliform bacteria, the arithmetic mean of all the composite or grab samples taken for the daily discharges collected in one month period. The monthly average for fecal coliform

bacteria is the geometric mean of daily discharge samples collected in a one month period. The monthly average for flow is the arithmetic mean of all flow measurements taken in a one month period.

28. New Discharger – means a person, owning or operating any building, structure, facility or installation:
 - a. from which there is or may be a discharge of pollutants;
 - b. that did not commence the discharge of pollutants prior to August 13, 1979, and which is not a new source; and
 - c. which has never received a final effective NPDES permit for dischargers at that site.
29. NH3-N – means the pollutant parameter ammonia, measured as nitrogen.
30. Permit application - means forms and additional information that is required by ADEM Administrative Code Rule 335-6-6-.08 and applicable permit fees.
31. Point source - means "any discernible, confined and discrete conveyance, including but not limited to any pipe, channel, ditch, tunnel, conduit, well, discrete fissure, container, rolling stock, concentrated animal feeding operation, or vessel or other floating craft, . . . from which pollutants are or may be discharged." Section 502(14) of the FWPCA, 33 U.S.C. Section 1362(14).
32. Pollutant - includes for purposes of this permit, but is not limited to, those pollutants specified in Code of Alabama 1975, Section 22-22-1(b)(3) and those effluent characteristics specified in Provision I. A. of this permit.
33. Privately Owned Treatment Works – means any devices or system which is used to treat wastes from any facility whose operator is not the operator of the treatment works, and which is not a "POTW".
34. Publicly Owned Treatment Works – means a wastewater collection and treatment facility owned by the State, municipality, regional entity composed of two or more municipalities, or another entity created by the State or local authority for the purpose of collecting and treating municipal wastewater.
35. Receiving Stream – means the "waters" receiving a "discharge" from a "point source".
36. Severe property damage - means substantial physical damage to property, damage to the treatment facilities which causes them to become inoperable, or substantial and permanent loss of natural resources which can reasonably be expected to occur in the absence of a bypass. Severe property damage does not mean economic loss caused by delays in production.
37. Significant Source – means a source which discharges 0.025 MGD or more to a POTW or greater than five percent of the treatment work's capacity, or a source which is a primary industry as defined by the U.S. EPA or which discharges a priority or toxic pollutant.
38. TKN – means the pollutant parameter Total Kjeldahl Nitrogen.
39. TON – means the pollutant parameter Total Organic Nitrogen.
40. TRC – means Total Residual Chlorine.
41. TSS – means the pollutant parameter Total Suspended Solids.
42. 24HC – means 24-hour composite sample, including any of the following:
 - a. the mixing of at least 12 equal volume samples collected at constant time intervals of not more than 2 hours over a period of 24 hours;
 - b. a sample collected over a consecutive 24-hour period using an automatic sampler composite to one sample. As a minimum, samples shall be collected hourly and each shall be no more than one twenty-fourth (1/24) of the total sample volume collected;
 - c. a sample collected over a consecutive 24-hour period using an automatic composite sampler composited proportional to flow.
43. Upset - means an exceptional incident in which there is an unintentional and temporary noncompliance with technology-based permit discharge limitations because of factors beyond the reasonable control of the permittee. An upset does not include noncompliance to the extent caused by operational error, improperly designed treatment facilities, inadequate treatment facilities, lack of preventive maintenance, or careless or improper operation.
44. Waters - means "[a]ll waters of any river, stream, watercourse, pond, lake, coastal, ground or surface water, wholly or partially within the state, natural or artificial. This does not include waters which are entirely confined and retained completely upon the

property of a single individual, partnership or corporation unless such waters are used in interstate commerce." Code of Alabama 1975, Section 22-22-1(b)(2). Waters "include all navigable waters" as defined in Section 502(7) of the FWPCA, 22 U.S.C. Section 1362(7), which are within the State of Alabama.

45. Week - means the period beginning at twelve midnight Saturday and ending at twelve midnight the following Saturday.
46. Weekly (7-day and calendar week) Average – is the arithmetic mean of all samples collected during a consecutive 7-day period or calendar week, whichever is applicable. The calendar week is defined as beginning on Sunday and ending on Saturday. Weekly averages shall be calculated for all calendar weeks with Saturdays in the month. If a calendar week overlaps two months (i.e., the Sunday is in one month and the Saturday in the following month), the weekly average calculated for the calendar week shall be included in the data for the month that contains the Saturday.

I. SEVERABILITY

The provisions of this permit are severable, and if any provision of this permit or the application of any provision of this permit to any circumstance is held invalid, the application of such provision to other circumstances, and the remainder of this permit, shall not be affected thereby.

PART IV ADDITIONAL REQUIREMENTS, CONDITIONS, AND LIMITATIONS

A. BEST MANAGEMENT PRACTICES (BMP) PLAN REQUIREMENTS

1. BMP Plan

The permittee shall develop and implement a Best Management Practices (BMP) Plan which prevents, or minimizes the potential for, the release of pollutants from ancillary activities, including material storage areas; plant site runoff; in-plant transfer, process and material handling areas; loading and unloading operations, and sludge and waste disposal areas, to the waters of the State through plant site runoff; spillage or leaks; sludge or waste disposal; or drainage from raw material storage.

2. Plan Content

The permittee shall prepare and implement a best management practices (BMP) plan, which shall:

- a. Establish specific objectives for the control of pollutants:
 - (1) Each facility component or system shall be examined for its potential for causing a release of significant amounts of pollutants to waters of the State due to equipment failure, improper operation, natural phenomena such as rain or snowfall, etc.
 - (2) Where experience indicates a reasonable potential for equipment failure (e.g., a tank overflow or leakage), natural condition (e.g. precipitation), or circumstances to result in significant amounts of pollutants reaching surface waters, the plan should include a prediction of the direction, rate of flow, and total quantity of pollutants which could be discharged from the facility as a result of each condition or circumstance.
- b. Establish specific best management practices to meet the objectives identified under paragraph a. of this section, addressing each component or system capable of causing a release of significant amounts of pollutants to the waters of the State, and identifying specific preventative or remedial measures to be implemented;
- c. Establish a program to identify and repair leaking equipment items and damaged containment structures, which may contribute to contaminated stormwater runoff. This program must include regular visual inspections of equipment, containment structures and of the facility in general to ensure that the BMP is continually implemented and effective.
- d. Prevent the spillage or loss of fluids, oil, grease, gasoline, etc. from vehicle and equipment maintenance activities and thereby prevent the contamination of stormwater from these substances;
- e. Prevent or minimize stormwater contact with material stored on site;
- f. Designate by position or name the person or persons responsible for the day to day implementation of the BMP;
- g. Provide for routine inspections, on days during which the facility is manned, of any structures that function to prevent stormwater pollution or to remove pollutants from stormwater and of the facility in general to ensure that the BMP is continually implemented and effective;
- h. Provide for the use and disposal of any material used to absorb spilled fluids that could contaminate stormwater;
- i. Develop a solvent management plan, if solvents are used on site. The solvent management plan shall include as a minimum lists of the total organic compounds on site; the method of disposal used instead of dumping, such as reclamation, contract hauling; and the procedures for assuring that toxic organics do not routinely spill or leak into the stormwater;
- j. Provide for the disposal of all used oils, hydraulic fluids, solvent degreasing material, etc. in accordance with good management practices and any applicable state or federal regulations;
- k. Include a diagram of the facility showing the locations where stormwater exits the facility, the locations of any structure or other mechanisms intended to prevent pollution of stormwater or to remove pollutants from stormwater, the locations of any collection and handling systems;
- l. Provide control sufficient to prevent or control pollution of stormwater by soil particles to the degree required to maintain compliance with the water quality standard for turbidity applicable to the waterbody(s) receiving discharge(s) under this permit;

- m. Provide spill prevention, control, and/or management sufficient to prevent or minimize contaminated stormwater runoff. Any containment system used to implement this requirement shall be constructed of materials compatible with the substance(s) contained and shall prevent the contamination of groundwater. The containment system shall also be capable of retaining a volume equal to 110 percent of the capacity of the largest tank for which containment is provided;
 - n. Provide and maintain curbing, diking or other means of isolating process areas to the extent necessary to allow segregation and collection for treatment of contaminated stormwater from process areas;
 - o. Be reviewed by plant engineering staff and the plant manager; and
 - p. Bear the signature of the plant manager.
3. Compliance Schedule
- The permittee shall have reviewed (and revised if necessary) and fully implemented the BMP plan as soon as practicable but no later than six months after the effective date of this permit.
4. Department Review
- a. When requested by the Director or his designee, the permittee shall make the BMP available for Department review.
 - b. The Director or his designee may notify the permittee at any time that the BMP is deficient and require correction of the deficiency.
 - c. The permittee shall correct any BMP deficiency identified by the Director or his designee within 30 days of receipt of notification and shall certify to the Department that the correction has been made and implemented.
5. Administrative Procedures
- a. A copy of the BMP shall be maintained at the facility and shall be available for inspection by representatives of the Department.
 - b. A log of the routine inspection required above shall be maintained at the facility and shall be available for inspection by representatives of the Department. The log shall contain records of all inspections performed for the last three years and each entry shall be signed by the person performing the inspection.
 - c. The permittee shall provide training for any personnel required to implement the BMP and shall retain documentation of such training at the facility. This documentation shall be available for inspection by representatives of the Department. Training shall be performed prior to the date that implementation of the BMP is required.
 - d. BMP Plan Modification. The permittee shall amend the BMP plan whenever there is a change in the facility or change in operation of the facility which materially increases the potential for the ancillary activities to result in a discharge of significant amounts of pollutants.
 - e. BMP Plan Review. The permittee shall complete a review and evaluation of the BMP plan at least once every three years from the date of preparation of the BMP plan. Documentation of the BMP Plan review and evaluation shall be signed and dated by the Plant Manager.

B. STORMWATER FLOW MEASUREMENT AND SAMPLING REQUIREMENTS

- 1. Stormwater Flow Measurement
 - a. All stormwater samples shall be collected from the discharge resulting from a storm event that is greater than 0.1 inches.
 - b. The total volume of stormwater discharged for the event must be monitored, including the date and duration (in hours) and rainfall (in inches) for storm event(s) sampled. The duration between the storm event sampled and the end of the previous measurable (greater than 0.1 inch rainfall) storm event must be a minimum of 72 hours. This information must be recorded as part of the sampling procedure and records retained according to Part I.B. of this permit.
 - c. The volume may be measured using flow measuring devices, or estimated based on a modification of the Rational Method using total depth of rainfall, the size of the drainage area serving a stormwater outfall, and an estimate of the runoff coefficient of the drainage area. This information must be recorded as part of the sampling procedure and records retained according to Part I.B. of this permit.
- 2. Stormwater Sampling

- a. A grab sample, if required by this permit, shall be taken during the first thirty minutes of the discharge (or as soon thereafter as practicable); and a flow-weighted composite sample, if required by this permit, shall be taken for the entire event or for the first three hours of the event.
- b. All test procedures will be in accordance with part I.B. of this permit.

ALABAMA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
WATER DIVISION – INDUSTRIAL AND MUNICIPAL SECTIONS
NONCOMPLIANCE NOTIFICATION FORM

PERMITTEE NAME: _____ PERMIT NO: _____

FACILITY LOCATION: _____

DMR REPORTING PERIOD: _____

1. DESCRIPTION OF DISCHARGE: (Include outfall number (s))

2. DESCRIPTION OF NON-COMPLIANCE: (Attach additional pages if necessary):

LIST EFFLUENT VIOLATIONS (If applicable)			
Outfall Number (s)	NONCOMPLIANCE PARAMETER(S)	Result Reported (Include units)	Permit Limit (Include units)

LIST MONITORING / REPORTING VIOLATIONS (If applicable)		
Outfall Number (s)	NONCOMPLIANCE PARAMETER(S)	Monitoring / Reporting Violation (Provide description)

3. CAUSE OF NON-COMPLIANCE (Attach additional pages if necessary):

4. PERIOD OF NONCOMPLIANCE: (Include exact date(s) and time(s) or, if not corrected, the anticipated time the noncompliance is expected to continue):

5. DESCRIPTION OF STEPS TAKEN AND/OR BEING TAKEN TO REDUCE OR ELIMINATE THE NONCOMPLYING DISCHARGE AND TO PREVENT ITS RECURRENCE (attach additional pages if necessary):

"I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations."

NAME AND TITLE OF RESPONSIBLE OFFICIAL (type or print)

SIGNATURE OF RESPONSIBLE OFFICIAL / DATE SIGNED

ADEM PERMIT RATIONALE

PREPARED DATE: April 18, 2012
PREPARED BY: Wayne Holt
REVISED June 20, 2012

Permittee Name: Merichem Company
Facility Name: Merichem Company
Permit Number: AL0025330

PERMIT IS MODIFICATION

DISCHARGE SERIAL NUMBERS & DESCRIPTIONS:

DSN001: Non-chlorinated NCCW and stormwater not associated with process areas
DSN002: Freshwater pond overflow and stormwater
DSN003: Stormwater from secondary containment areas associated with the manufacture of Naphthenic Acids and JeSOL-9
DSN006: Stormwater associated with the production of metal naphthenates, JeSOL-9 and various catalysts
DSN007: Stormwater associated with the production of metal naphthenates, JeSOL-9 and various catalysts
DSN008: Stormwater associated with the production of Copper Naphthenate, Iron Naphthenate, and/or Magnesium Naphthenate and JeSOL-9

INDUSTRIAL CATEGORY: 2911 Aliphatic Hydrocarbons manufactured from purchased refinery products.

MAJOR: N

STREAM INFORMATION:

Receiving Stream: Warrior River Basin between Oliver Lock & Dam and Hurricane Creek
Classification: Fish & Wildlife
River Basin: Warrior
7Q10: 104.8 cfs
1Q10: 78.6 cfs
Annual Average Flow: 7662 cfs
303(d) List: NO
Impairment: _____
TMDL: NO

DISCUSSION:

Merichem Company has applied to modify outfalls, DSN003, and DSN006 through DSN008, in their existing permit to include JeSOL-9 and various catalysts. JeSOL-9 is a proprietary chemical used in the production of some aircraft fuels. JeSOL-9 is produced during the recovery of naphthenic acids and cresols.

ADEM Administrative Rule 335-6-10-.12 requires applicants to new or expanded discharges to Tier II waters demonstrate that the proposed discharge is necessary for important economic or social development in the area in which the waters are located. The application submitted by the facility is for a new or expanded discharge. Therefore, the applicant is required to demonstrate that the discharge is necessary for economic and social development. The Anti-deg Analysis is attached.

EPA has not promulgated specific guidelines for the discharges covered under the proposed permit. Proposed permit limits are based on Best Professional Judgment. The proposed frequencies are based on a review of site specific conditions and an evaluation of similar facilities.

003Q, 006Q – 008Q:

The following parameters and monitoring requirements are proposed to be added to the respective outfalls based on the facility's application request.

<u>Parameter</u>	<u>Monthly Avg Loading</u>	<u>Daily Max Loading</u>	<u>Daily Min Concentration</u>	<u>Monthly Avg Concentration</u>	<u>Daily Max Concentration</u>	<u>Sample Frequency</u>	<u>Sample Type</u>	<u>Basis*</u>
Potassium, Total (As K)	-	-	-	-	REPORT mg/l	Quarterly	Grab	BPJ
Cobalt, Total (As Co)	-	-	-	-	REPORT mg/l	Quarterly	Grab	BPJ
Ammonia (As N) + Unionized Ammonia	-	-	-	-	REPORT mg/l	Quarterly	Grab	BPJ

***Basis for Permit Limitation**

- BPJ – Best Professional Judgment
- WQBEL – Water Quality Based Effluent Limits
- EGL – Federal Effluent Guideline Limitations
- 303(d) – 303(d) List of Impaired Waters
- TMDL – Total Maximum Daily Load Requirements

Discussion

Best Professional Judgment (BPJ)

The parameters of concern for this facility are based on the parameters of concern listed in EPA form 2F and from the current permit. These parameters are consistent with similar facilities in the state and have been proven to be reflective of the operations at this facility. The parameters with specific limits are discussed below:

Best Management Practices (BMPs) are believed to be the most effective way to control the contamination of stormwater from areas of industrial activities. This facility is required to maintain a BMP plan. The requirements of the BMP plan call for minimization of stormwater contact with waste materials, products and by-products, and for prevention of spills or loss of fluids from equipment maintenance activities. The effectiveness of the BMPs will be measured through the monitoring of the pollutants of concern.

Revision of June 20, 2012

The revision of June 20th is based on correspondence from the facility to better describe the discharge outfalls.

ANTIDegradation Rationale

Permit Number: AL0025330
Company Name Merichem Company

Receiving water: Warrior River
Stream Category: Tier 2 as defined by ADEM Admin. Code 335-6-10-.12
Discharge Description: Stormwater associated with the manufacture of Naphthenic Acids and JeSOL-9

The following preliminary determination was prepared in accordance with ADEM Admin. Code 335-6-10-.12 (7) (c):

The Department has reviewed the information submitted by applicant in accordance with ADEM Admin. Code 335-6-10-.12 (9). The applicant has demonstrated that there are no technically viable options in their alternatives analysis that would completely eliminate a direct discharge.

The permit applicant has indicated that the following economic and/or social benefits will result from this project:

- The facility has increased employment through the addition of 1 employee at the facility in Tuscaloosa, AL.
- The facility will pay additional state or local taxes in the amount of \$1000.
- The facility will avoid a 10% reduction in employment.
- The facility will provide back to the community by continuing to add to the local tax base and provide jobs for the local workforce.

The Department has determined that the discharge as proposed by the permit applicant is necessary for important economic and social development in the area in which the receiving water is located.

Prepared By: Eric Sanderson
Date: April 18, 2012



MERICHEM COMPANY

June 1, 2012

Mr. Wayne Holt
Industrial Section, Water Division
Alabama Department of Environmental Management
1400 Coliseum Boulevard
Montgomery, Alabama 36130-1463

**RE: Merichem Company
2701 Warrior Road
Tuscaloosa, Alabama 35404
NPDES Permit No.: AL0025330**

Dear Mr. Holt:

Merichem Company (Merichem), respectfully submits the following suggested revisions to the Draft National Pollutant Discharge Elimination System (NPDES) Permit issued by the Alabama Department of Environmental Management (ADEM) on May 3, 2012.

1. NPDES Permit Page 6 and 7 of 30

DSN006Q Outfall Description: "Stormwater associated with the production of Copper Naphthenate, Iron Naphthenate, and/or Magnesium Naphthenate and JeSOL-9."

Recommended Revision - The Source of Discharge for DSN006 should be revised as follows: "Stormwater associated with the production of metal naphthenates, JeSOL-9, and various catalysts."

2. NPDES Permit Page 8 and 9 of 30

DSN007Q Outfall Description: "Stormwater associated with the production of Copper Naphthenate, Iron Naphthenate, Magnesium Naphthenate, Zinc Naphthenate, and/or Molybdenum Naphthenate and JeSOL-9."

Recommended Revision - The Source of Discharge for DSN007 should be revised as follows: "Stormwater associated with the production of metal naphthenates, JeSOL-9, and various catalysts."

3. NPDES Permit Page 10 and 11 of 30:

DSN008Q Outfall Description: "Stormwater associated with the production of Copper Naphthenate, Iron Naphthenate, and/or Magnesium Naphthenate and JeSOL-9."

Recommended Revision - The Source of Discharge for DSN008 should be revised as follows: "Stormwater associated with the production of metal naphthenates, JeSOL-9, and various catalysts."

The recommended outfall descriptions as per above is to simplify the descriptions for the outfalls that are associated with the West Plant production area. The metal naphthenates are no longer produced on-site; however we plan to keep it in the outfall description in event that production is resumed at a later date. In addition, JeSOL is no longer produced at the West Plant; however we may need to store JeSOL at the West Plant in the future.

If you have additional questions, please do not hesitate to contact me at (205) 462-2282.

Respectfully,

Jeffrey Zerkle, CHMM
EHS&S Manager

cc: P. Bailey, T. Yagley, G. Sullaway, R. Vickers
Mr. Eric Sanderson, ADEM
Ms. Elizabeth T. Grinder, PPM Consultants, Inc.



SCANNED

MAY 03 2012

September 14, 2010

Mr. Wayne Holt
Industrial Water
Alabama Department of Environmental Management
1400 Coliseum Boulevard
Montgomery, Alabama 36110

Re: Merichem Company
Request for Confidentiality
NPDES Permit No. AL 0025330



Dear Mr. Holt:

Merichem Company would like to request that specific data used to develop the NPDES permit modification application submitted in conjunction with this letter be kept confidential. More specifically, we would like to request that the attached NPDES Permit Modification Application (public copy) be submitted and made available for the public file. Merichem would like to make this request in order to protect proprietary information associated with company processes and the products manufactured at the facility. Please do not hesitate to contact me at (205) 462-2277, should you have any questions.

Thank you,

John E. Greer
Plant Manager

Enclosures: NPDES Permit Modification Application – Public Copy

NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM (NPDES)
PERMIT APPLICATION SUPPLEMENTARY INFORMATION

SCANNED

ALABAMA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
WATER DIVISION – INDUSTRIAL / MINING PERMIT SECTION
POST OFFICE BOX 301463
MONTGOMERY, ALABAMA 36130-1463

MAY 03 2012

INSTRUCTIONS: APPLICATIONS SHOULD BE TYPED OR PRINTED IN INK AND SUBMITTED TO THE DEPARTMENT IN DUPLICATE. IF INSUFFICIENT SPACE IS AVAILABLE TO ADDRESS ANY ITEM, PLEASE CONTINUE ON AN ATTACHED SHEET OF PAPER. PLEASE MARK N/A IN THE APPROPRIATE BOX WHEN AN ITEM IS NON-APPLICABLE TO THE APPLICANT.

PURPOSE OF THIS APPLICATION

- ☐ INITIAL PERMIT APPLICATION FOR NEW FACILITY ☐ INITIAL PERMIT APPLICATION FOR EXISTING FACILITY
☒ MODIFICATION OF EXISTING PERMIT ☐ REISSUANCE OF EXISTING PERMIT
☐ REVOCATION & REISSUANCE OF EXISTING PERMIT

1. Facility Name: Merichem Company

a. Operator Name: Merichem Company

b. Is the operator identified in 1.a., the owner of the facility? Yes ☒ No ☐
If no, provide the name and address of the operator and submit information indicating the operator's scope of responsibility for the facility.

2. NPDES Permit Number AL 0 0 2 5 3 3 0

3. SID Permit Number (if applicable): IU 3 9 - 6 3 - 0 0 0 1 2

4. NPDES General Permit Number (if applicable) ALG _____

5. Facility Physical Location: (Attach a map with location marked; street, route no. or other specific identifier)

Street: 2701 Warrior Road

City: Tuscaloosa County: Tuscaloosa State: Alabama Zip: 35404

Facility (Front Gate) Latitude: 33.245131 Longitude: 87.478666

6. Facility Mailing Address (Street or Post Office Box): Post Office Box 40777

City: Tuscaloosa State: Alabama Zip: 35404

SEP 17 2010

7. Responsible Official (as described on page 13 of this application):

Name and Title: John E. Greer, Plant Manager

Address: 2701 Warrior Road

City: Tuscaloosa State: Alabama Zip: 35404

Phone Number: (205) 462-2277

EMAIL Address: jgreer@merichem.com

8. Designated Facility Contact:

Name and Title: John E. Greer, Plant Manager

Phone Number: (205) 462-2277

EMAIL Address: jgreer@merichem.com

9. Designated Discharge Monitoring Report Contact:

Name and Title: John E. Greer, Plant Manager

Phone Number: (205) 462-2277

EMAIL Address: jgreer@merichem.com

10. Type of Business Entity:

☒ Corporation ☐ General Partnership ☐ Limited Partnership

☐ Sole Proprietorship ☐ Other (Please Specify) _____

11. Complete this section if the Applicant's business entity is a Corporation

a) Location of Incorporation:

Address: 5455 Old Spanish Trail

City: Houston County: Harris State: Texas Zip: 77023-5013

b) Parent Corporation of Applicant:

Name: Merichem Company

Address: 5455 Old Spanish Trail

City: Houston State: Texas Zip: 77023-5013

c) Subsidiary Corporation(s) of Applicant:

Name: Not Applicable

Address: _____

City: _____ State: _____ Zip: _____

d) Corporate Officers:

Name: Kenneth Currie, Chairman and CEO

Address: 5455 Old Spanish Trail

City: Houston State: Texas Zip: 77023-5013

Name: Gordon Kato, Vice-President

Address: 5455 Old Spanish Trail

City: Houston State: Texas Zip: _____

e) Agent designated by the corporation for purposes of service:

Name: Not Applicable

Address: _____

City: _____ State: _____ Zip: _____

12. If the Applicant's business entity is a Partnership, please list the general partners.

Name: Not Applicable

Address: _____

City: _____ State: _____ Zip: _____

Name: _____

Address: _____

City: _____ State: _____ Zip: _____

13. If the Applicant's business entity is a Proprietorship, please enter the proprietor's information.

Name: Not Applicable

Address: _____

City: _____ State: _____ Zip: _____

14. Permit numbers for Applicant's previously issued NPDES Permits and identification of any other State of Alabama Environmental Permits presently held by the Applicant, its parent corporation, or subsidiary corporations within the State of Alabama:

<u>Permit Name</u>	<u>Permit Number</u>	<u>Held By</u>
NPDES Permit	AL 0025330	Merichem Company
SID Permit	IU 39-63-00012	Merichem Company
Air Permits	413-0008 (various)	Merichem Company

15. Identify all Administrative Complaints, Notices of Violation, Directives, Administrative Orders, or Litigation concerning water pollution, if any, against the Applicant, its parent corporation or subsidiary corporations within the State of Alabama within the past five years (attach additional sheets if necessary):

<u>Facility Name</u>	<u>Permit Number</u>	<u>Type of Action</u>	<u>Date of Action</u>
Not Applicable			

SECTION B – BUSINESS ACTIVITY

1. Indicate applicable Standard Industrial Classification (SIC) Codes for all processes
(If more than one applies, list in order of importance:

- a. 2911632
- b. 2819
- c. _____
- d. _____
- e. _____

13. If the Applicant's business entity is a Proprietorship, please enter the proprietor's information.

Name: Page 4 Continued

Address: _____

City: _____ State: _____ Zip: _____

14. Permit numbers for Applicant's previously issued NPDES Permits and identification of any other State of Alabama Environmental Permits presently held by the Applicant, its parent corporation, or subsidiary corporations within the State of Alabama:

<u>Permit Name</u>	<u>Permit Number</u>	<u>Held By</u>
RCRA Large Quantity Generator	EPA ID No. ALD981002959	Merichem Company
_____	_____	_____
_____	_____	_____

15. Identify all Administrative Complaints, Notices of Violation, Directives, Administrative Orders, or Litigation concerning water pollution, if any, against the Applicant, its parent corporation or subsidiary corporations within the State of Alabama within the past five years (attach additional sheets if necessary):

<u>Facility Name</u>	<u>Permit Number</u>	<u>Type of Action</u>	<u>Date of Action</u>
Not Applicable	_____	_____	_____
_____	_____	_____	_____
_____	_____	_____	_____

SECTION B – BUSINESS ACTIVITY

1. Indicate applicable Standard Industrial Classification (SIC) Codes for all processes
(If more than one applies, list in order of importance:

- a. 2911632
- b. 2819
- c. _____
- d. _____
- e. _____

2. If your facility conducts or will be conducting any of the processes listed below (regardless of whether they generate wastewater, waste sludge, or hazardous waste), place a check beside the category of business activity (check all that apply):

Industrial Categories

<input type="checkbox"/> Aluminum Forming	<input type="checkbox"/> Metal Molding and Casting
<input type="checkbox"/> Asbestos Manufacturing	<input type="checkbox"/> Metal Products
<input type="checkbox"/> Battery Manufacturing	<input type="checkbox"/> Nonferrous Metals Forming
<input type="checkbox"/> Can Making	<input type="checkbox"/> Nonferrous Metals Manufacturing
<input type="checkbox"/> Canned and Preserved Fruit and Vegetables	<input type="checkbox"/> Oil and Gas Extraction
<input type="checkbox"/> Canned and Preserved Seafood	<input type="checkbox"/> Organic Chemicals Manufacturing
<input type="checkbox"/> Cement Manufacturing	<input type="checkbox"/> Paint and Ink Formulating
<input type="checkbox"/> Centralized Waste Treatment	<input type="checkbox"/> Paving and Roofing Manufacturing
<input type="checkbox"/> Carbon Black	<input type="checkbox"/> Pesticides Manufacturing
<input type="checkbox"/> Coal Mining	<input type="checkbox"/> Petroleum Refining
<input type="checkbox"/> Coil Coating	<input type="checkbox"/> Phosphate Manufacturing
<input type="checkbox"/> Copper Forming	<input type="checkbox"/> Photographic
<input type="checkbox"/> Electric and Electronic Components Manufacturing	<input type="checkbox"/> Pharmaceutical
<input type="checkbox"/> Electroplating	<input type="checkbox"/> Plastic & Synthetic Materials
<input type="checkbox"/> Explosives Manufacturing	<input type="checkbox"/> Plastics Processing Manufacturing
<input type="checkbox"/> Feedlots	<input type="checkbox"/> Porcelain Enamel
<input type="checkbox"/> Ferroalloy Manufacturing	<input type="checkbox"/> Pulp, Paper, and Fiberboard Manufacturing
<input type="checkbox"/> Fertilizer Manufacturing	<input type="checkbox"/> Rubber
<input type="checkbox"/> Foundries (Metal Molding and Casting)	<input type="checkbox"/> Soap and Detergent Manufacturing
<input type="checkbox"/> Glass Manufacturing	<input type="checkbox"/> Steam and Electric
<input type="checkbox"/> Grain Mills	<input type="checkbox"/> Sugar Processing
<input type="checkbox"/> Gum and Wood Chemicals Manufacturing	<input type="checkbox"/> Textile Mills
<input type="checkbox"/> Inorganic Chemicals	<input type="checkbox"/> Timber Products
<input type="checkbox"/> Iron and Steel	<input type="checkbox"/> Transportation Equipment Cleaning
<input type="checkbox"/> Leather Tanning and Finishing	<input type="checkbox"/> Waste Combustion
<input type="checkbox"/> Metal Finishing	<input type="checkbox"/> Other (specify) _____
<input type="checkbox"/> Meat Products	

A facility with processes inclusive in these business areas may be covered by Environmental Protection (EPA) categorical standards. These facilities are termed "categorical users" and should skip to question 2 of Section C.

3. Give a brief description of all operations at this facility including primary products or services (attach additional sheets if necessary):

Merichem Company is a manufacturer of naphthenic acid, which is produced from the processing of sodium naphthenate and crude naphthenic acid purchased from refineries to crude, semi-refined, refined naphthenic acids, and metal salts of naphthenic acid. In addition, Merichem may begin manufacturing JeSOL-9. Merichem also manufactures various catalysts from purchased raw materials.

SECTION C – WASTEWATER DISCHARGE INFORMATION

Facilities that checked activities in question 2 of Section B and are considered Categorical Industrial Users should skip to question 2 of this section.

1. **For Non-Categorical Users Only:** Provide wastewater flows for each of the processes or proposed processes. Using the process flow schematic (Figure 1, pg 14), enter the description that corresponds to each process. [New facilities should provide estimates for each discharge.]

Process Description	Last 12 Months (gals/day) Highest Month Avg. Flow	Highest Flow Year of Last 5 (gals/day) Monthly Avg. Flow	Discharge Type (batch, continuous, intermittent)
Non-Contact Cooling Water (DSN001)	19,642 gpd	108,000 gpd	Cont.

If batch discharge occurs or will occur, indicate: [New facilities may estimate.]

- a. Number of batch discharges: N/A per day
- b. Average discharge per batch: N/A (GPD)
- c. Time of batch discharges N/A at
(days of week) (hours of day)
- d. Flow rate: N/A gallons/minute
- e. Percent of total discharge: N/A

Non-Process Discharges (e.g. non-contact cooling water)	Last 12 Months (gals/day) Highest Month Avg. Flow	Highest Flow Year of Last 5 (gals/day) Monthly Avg. Flow

2. **Complete this Section only if you are subject to Categorical Standards and plan to directly discharge the associated wastewater to a water of the State.** If Categorical wastewater is discharged exclusively via an indirect discharge to a public or privately-owned treatment works, check "Yes" in the appropriate space below and proceed directly to part 2.c .

[] Yes

For Categorical Users: Provide the wastewater discharge flows or production (whichever is applicable by the effluent guidelines) for each of your processes or proposed processes. Using the process flow schematic (Figure 1, pg 14), enter the description that corresponds to each process. [New facilities should provide estimates for each discharge.]

2a.

<u>Regulated Process</u>	<u>Applicable Category</u>	<u>Applicable Subpart</u>	<u>Type of Discharge Flow (batch, continuous, intermittent)</u>
N/A			

2b.

<u>Process Description</u>	<u>Last 12 Months (gals/day) Highest Month Average*</u>	<u>Highest Flow Year of Last 5 (gals/day) Monthly Average*</u>	<u>Discharge Type (batch, continuous, intermittent)</u>
N/A			

*** Reported values should be expressed in units of the applicable Federal production-based standard. For example, flow (MGD), production (pounds per day), etc.**

If batch discharge occurs or will occur, indicate: [New facilities may estimate.]

- Number of batch discharges: _____ per day
- Average discharge per batch: _____ (GPD)
- Time of batch discharges _____ at _____
(days of week) (hours of day)
- Flow rate: _____ gallons/minute

Percent of total discharge: _____

2c.

<u>Non categorical Process Description</u>	<u>Last 12 Months (gals/day) Highest Month Avg. Flow</u>	<u>Highest Flow Year of Last 5 (gals/day) Monthly Avg. Flow</u>	<u>Discharge Type (batch, continuous, intermittent)</u>
N/A			

If batch discharge occurs or will occur, indicate: [New facilities may estimate.]

- Number of batch discharges: _____ per day
- Average discharge per batch: _____ (GPD)
- Time of batch discharges _____ at _____
(days of week) (hours of day)
- Flow rate: _____ gallons/minute

Percent of total discharge: _____

Nap - Acid Refining

2d.

Non-Process Discharges (e.g. non-contact cooling water)	Last 12 Months (gals/day) Highest Month Avg. Flow	Highest Flow Year of Last 5 (gals/day) Monthly Avg. Flow

All Applicants must complete Questions 3 – 5.

3. Do you have, or plan to have, automatic sampling equipment or continuous wastewater flow metering equipment at this facility?

Flow Metering	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	N/A <input type="checkbox"/>
Sampling Equipment	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	N/A <input type="checkbox"/>

If so, please indicate the present or future location of this equipment on the sewer schematic and describe the equipment below:

4. Are any process changes or expansions planned during the next three years that could alter wastewater volumes or characteristics? Yes ☒ No ☐ (If no, skip Question 5)

Briefly describe these changes and their anticipated effects on the wastewater volume and characteristics:

Merichem is considering the manufacture JeSOL-9 at the facility.

5. List the trade name and chemical composition of all biocides and corrosion inhibitors used:

Trade Name	Chemical Composition
Control IS 100	Sodium Sulfate
SteamMate NA701	Diethylaminoethanol, Cyclohexylamine

For each biocide and/or corrosion inhibitor used, please include the following information:

- (1) 96-hour median tolerance limit data for organisms representative of the biota of the waterway into which the discharge will ultimately reach,
- (2) quantities to be used,
- (3) frequencies of use,
- (4) proposed discharge concentrations, and
- (5) EPA registration number, if applicable

2d.

Non-Process Discharges (e.g. non-contact cooling water)	Last 12 Months (gals/day) Highest Month Avg. Flow	Highest Flow Year of Last 5 (gals/day) Monthly Avg. Flow

All Applicants must complete Questions 3 – 5.

3. Do you have, or plan to have, automatic sampling equipment or continuous wastewater flow metering equipment at this facility?

Flow Metering	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	N/A <input type="checkbox"/>
Sampling Equipment	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	N/A <input type="checkbox"/>

If so, please indicate the present or future location of this equipment on the sewer schematic and describe the equipment below:

4. Are any process changes or expansions planned during the next three years that could alter wastewater volumes or characteristics? Yes ☒ No ☐ (If no, skip Question 5)

Briefly describe these changes and their anticipated effects on the wastewater volume and characteristics:

Merichem is considering the manufacture JeSQL-9 at the facility.

5. List the trade name and chemical composition of all biocides and corrosion inhibitors used:

Trade Name	Chemical Composition
Optisperse PO 400	Sodium tripolyphosphate

For each biocide and/or corrosion inhibitor used, please include the following information:

- (1) 96-hour median tolerance limit data for organisms representative of the biota of the waterway into which the discharge will ultimately reach,
- (2) quantities to be used,
- (3) frequencies of use,
- (4) proposed discharge concentrations, and
- (5) EPA registration number, if applicable

SECTION D – WATER SUPPLY

Water Sources (check as many as are applicable):

☐ Private Well☒ Municipal Water Utility (Specify City): _____☒ Surface Water☐ Other (Specify): _____**IF MORE THAN ONE WELL OR SURFACE INTAKE, PROVIDE DATA FOR EACH ON AN ATTACHMENT**City: 0.092 *MGD Well: _____ *MGD Well Depth: _____ Ft. Latitude: _____ Longitude: _____Surface Intake Volume: 0 *MGD Intake Elevation in Relation to Bottom _____ Ft.

Intake Elevation: _____ Ft. Latitude: _____ Longitude: _____

Name of Surface Water Source: _____

* MGD – Million Gallons per Day

Cooling Water Intake Structure Information**Complete questions 1 and 2 if your water supply is provided by an outside source and not by an onsite water intake structure? (e.g., another industry, municipality, etc...)**

1. Does the provider of your source water operate a surface water intake? Yes ☒ No ☐
(If yes, continue, if no, go to Section E.)

a) Name of Provider _____ b) Location of Provider _____

c) Latitude: _____ Longitude: _____

2. Is the provider a public water system (defined as a system which provides water to the public for human consumption or which provides only treated water, not raw water)? Yes ☐ No ☐
(If yes, go to Section E, if no, continue.)

Only to be completed if you have a cooling water intake structure or the provider of your water supply uses an intake structure and does not treat the raw water.

3. Is any water withdrawn from the source water used for cooling? Yes ☐ No ☐
4. Using the average monthly measurements over any 12-month period, approximately what percentage of water withdrawn is used exclusively for cooling purposes? _____%
5. Does the cooling water consist of treated effluent that would otherwise be discharged? Yes ☐ No ☐
(If yes, go to Section E, if no, complete questions 6 – 17.)
6. Is the cooling water used in a once-through or closed cycle cooling system? Yes ☐ No ☐
7. When was the intake installed?
(Please provide dates for all major construction/installation of intake components including screens)
8. What is the maximum intake volume?
(maximum pumping capacity in gallons per day)
9. What is the average intake volume?
(average intake pump rate in gallons per day average in any 30-day period)

Map - Acid Refinery

10. How is the intake operated? (e.g., continuously, intermittently, batch)
11. What is the mesh size of the screen on your intake?
12. What is the intake screen flow-through area?
13. What is the through screen design intake flow velocity? _____ ft/sec
14. What is the mechanism for cleaning the screen? (e.g., does it rotate for cleaning)
15. Do you have any additional fish detraction technology on your intake? Yes ☐ No ☐
16. Have there been any studies to determine the impact of the intake on aquatic organisms? Yes ☐ No ☐ (If yes please provide.)
17. Attach a site map showing the location of the water intake in relation to the facility, shoreline, water depth, etc.

SECTION E – WASTE STORAGE AND DISPOSAL INFORMATION

Provide a description of the location of all sites involved in the storage of solids or liquids that could be accidentally discharged to a water of the state, either directly or indirectly via such avenues as storm water drainage, municipal wastewater systems, etc., which are located at the facility for which the NPDES application is being made. Where possible, the location should be noted on a map and included with this application:

Description of Waste	Description of Storage Location
Oil Dry/Naphthenic Acid Cleanup Solids	Drums in oxidation building
Used Boiler Fuel Filters	Drums in oxidation building

Provide a description of the location of the ultimate disposal sites of solid or liquid waste by-products (such as sludges) from any wastewater treatment system located at the facility.

Description of Waste	Quantity (lbs/day)	Disposal Method*
N/A		

***Indicate which wastes identified above are disposed of at an off-site treatment facility and which are disposed of on-site. If any wastes are sent to an off-site centralized waste treatment facility, identify the waste and the facility.**

10. How is the intake operated? (e.g., continuously, intermittently, batch)
11. What is the mesh size of the screen on your intake?
12. What is the intake screen flow-through area?
13. What is the through screen design intake flow velocity? _____ ft/sec
14. What is the mechanism for cleaning the screen? (e.g., does it rotate for cleaning)
15. Do you have any additional fish detraction technology on your intake? Yes ☐ No ☐
16. Have there been any studies to determine the impact of the intake on aquatic organisms? Yes ☐ No ☐ (If yes please provide.)
17. Attach a site map showing the location of the water intake in relation to the facility, shoreline, water depth, etc.

SECTION E – WASTE STORAGE AND DISPOSAL INFORMATION

Provide a description of the location of all sites involved in the storage of solids or liquids that could be accidentally discharged to a water of the state, either directly or indirectly via such avenues as storm water drainage, municipal wastewater systems, etc., which are located at the facility for which the NPDES application is being made. Where possible, the location should be noted on a map and included with this application:

Description of Waste	Description of Storage Location
Cobalt Catalyst Solid Waste	Drums/totes in oxidation building
Cobalt Catalyst Wastewater	Drums in oxidation building

Provide a description of the location of the ultimate disposal sites of solid or liquid waste by-products (such as sludges) from any wastewater treatment system located at the facility.

Description of Waste	Quantity (lbs/day)	Disposal Method*

***Indicate which wastes identified above are disposed of at an off-site treatment facility and which are disposed of on-site. If any wastes are sent to an off-site centralized waste treatment facility, identify the waste and the facility.**

SECTION F – COASTAL ZONE INFORMATION

Is the discharge(s) located within 10-foot elevation of Mobile or Baldwin County?

Yes ☐ No ☒ If yes, then complete items A through M below:

YES NO

A. Does the project require new construction?

☐ ☐

B. Will the project be a source of new air emissions?

☐ ☐

C. Does the project involve dredging and/or filling?

☐ ☐

Has the Corps of Engineers (COE) permit been received?

☐ ☐

Corps Project Number _____

D. Does the project involve wetlands and/or submersed grassbeds?

☐ ☐

E. Are oyster reefs located near the project site?

☐ ☐

(Include a map showing project and discharge location with respect to oyster reefs)

F. Does the project involve the siting, construction and operation of an energy facility as defined in ADEM Admin. Code R. 335-8-1-.02(bb)?

☐ ☐

G. Does the project involve shoreline erosion mitigation?

☐ ☐

H. Does the project involve construction on beaches and dunes?

☐ ☐

I. Will the project interfere with public access to coastal waters?

☐ ☐

J. Does the project lie within the 100-year floodplain?

☐ ☐

K. Does the project involve the registration, sale, use, or application of pesticides?

☐ ☐

L. Does the project propose to construct a new well or alter an existing well to pump more than 50 GPD?

☐ ☐

M. Has the applicable permit been obtained?

☐ ☐

SECTION G – ANTI-DEGRADATION EVALUATION

In accordance with 40 CFR 131.12 and the Alabama Department of Environmental Management Administrative Code, Section 335-6-10-.04 for antidegradation, the following information must be provided, if applicable. It is the applicant's responsibility to demonstrate the social and economic importance of the proposed activity. If further information is required to make this demonstration, attach additional sheets to the application.

1. Is this a new or increased discharge that began after April 3, 1991?

Yes ☐ No ☒

If yes, complete question 2 below. If no, go to Section H.

2. Has an Anti-Degradation Analysis been previously conducted and submitted to the Department for the new or increased discharge referenced in question 1?

Yes ☐ No ☐

If yes, do not complete this section.

Revised

SECTION F – COASTAL ZONE INFORMATION

Is the discharge(s) located within 10-foot elevation of Mobile or Baldwin County?

Yes ☐ No ☒ If yes, then complete items A through M below:

YES NO

A. Does the project require new construction?

☐ ☐

B. Will the project be a source of new air emissions?

☐ ☐

C. Does the project involve dredging and/or filling?

☐ ☐

Has the Corps of Engineers (COE) permit been received?

☐ ☐

Corps Project Number _____

D. Does the project involve wetlands and/or submersed grassbeds?

☐ ☐

E. Are oyster reefs located near the project site?

☐ ☐

(Include a map showing project and discharge location with respect to oyster reefs)

F. Does the project involve the siting, construction and operation of an energy facility as defined in ADEM Admin. Code R. 335-8-1-.02(bb)?

☐ ☐

G. Does the project involve shoreline erosion mitigation?

☐ ☐

H. Does the project involve construction on beaches and dunes?

☐ ☐

I. Will the project interfere with public access to coastal waters?

☐ ☐

J. Does the project lie within the 100-year floodplain?

☐ ☐

K. Does the project involve the registration, sale, use, or application of pesticides?

☐ ☐

L. Does the project propose to construct a new well or alter an existing well to pump more than 50 GPD?

☐ ☐

M. Has the applicable permit been obtained?

☐ ☐

SECTION G – ANTI-DEGRADATION EVALUATION

In accordance with 40 CFR 131.12 and the Alabama Department of Environmental Management Administrative Code, Section 335-6-10-.04 for antidegradation, the following information must be provided, if applicable. It is the applicant's responsibility to demonstrate the social and economic importance of the proposed activity. If further information is required to make this demonstration, attach additional sheets to the application.

1. Is this a new or increased discharge that began after April 3, 1991?

Yes ☒ No ☐

If yes, complete question 2 below. If no, go to Section H.

2. Has an Anti-Degradation Analysis been previously conducted and submitted to the Department for the new or increased discharge referenced in question 1?

Yes ☐ No ☒

If yes, do not complete this section.

If no, and the discharge is to a Tier II waterbody as defined in ADEM Admin. Code r. 335-6-10-.12(4), complete questions A through F below and ADEM forms 311 and 313 (attached). Form 313 must be provided for each alternative considered technically viable.

Information required for new or increased discharges to high quality waters:

- A. What environmental or public health problem will the discharger be correcting?

Not Applicable

- B. How much will the discharger be increasing employment (at its existing facility or as the result of locating a new facility)?

Merichem has increased employment through the addition of 1 employee at the facility in Tuscaloosa, Alabama

- C. How much reduction in employment will the discharger be avoiding?

Merichem will avoid a 10% reduction in employment

- D. How much additional state or local taxes will the discharger be paying?

\$1,000

- E. What public service to the community will the discharger be providing?

Merichem will be continuing to add to the local tax base and provide jobs for the local workforce

- F. What economic or social benefit will the discharger be providing to the community?

Merichem will be continuing to add to the local tax base and provide jobs for the local workforce

SECTION H – EPA Application Forms

All Applicants must submit EPA permit application forms. More than one application form may be required from a facility depending on the number and types of discharges or outfalls found there. The EPA application forms are found on the Department's website at <http://www.adem.state.al.us/>. The EPA application forms must be submitted in duplicate as follows:

1. All applicants must submit Form 1.
2. Applicants for existing industrial facilities (including manufacturing facilities, commercial facilities, mining activities, and silvicultural activities) which discharge process wastewater must submit Form 2C.
3. Applicants for new industrial facilities which propose to discharge process wastewater must submit Form 2D.
4. Applicants for new and existing industrial facilities which discharge only non-process wastewater (i.e., non-contact cooling water and/or sanitary wastewater) must submit Form 2E.
5. Applicants for new and existing facilities whose discharge is composed entirely of storm water associated with industrial activity must submit Form 2F, unless exempted by § 122.26(c)(1)(ii). If the discharge is composed of storm water and non-storm water, the applicant must also submit Forms 2C, 2D, and/or 2E, as appropriate (in addition to Form 2F).

SECTION I – ENGINEERING REPORT/BMP PLAN REQUIREMENTS

See ADEM 335-6-6-.08(i) & (j)

Attachment 1 to Supplementary Form ADEM Form 311

Alternatives Analysis

Applicant/Project: Merichem Company/JeSOL-9 Project

All new or expanded discharges (except discharges eligible for coverage under general permits) covered by the NPDES permitting program are subject to the provisions of ADEM's antidegradation policy. Applicants for such discharges to Tier 2 waters are required to demonstrate "... that the proposed discharge is necessary for important economic or social development." As a part of this demonstration, the applicant must complete an evaluation of the discharge alternatives listed below, including a calculation of the total annualized project costs for each technically feasible alternative (using ADEM Form 312 for public-sector projects and ADEM Form 313 for private-sector projects). Alternatives with total annualized project costs that are less than 110% of the total annualized project costs for the Tier 2 discharge proposal are considered viable alternatives.

Alternative	Viable	Non-Viable	Comment
1 Land Application		Not Applicable	See attached comments
2 Pretreatment/Discharge to POTW	x		See attached comments
3 Relocation of Discharge		Not Applicable	See attached comments
4 Reuse/Recycle		Not Applicable	See attached comments
5 Process/Treatment Alternatives		Not Applicable	See attached comments
6 On-site/Sub-surface Disposal		Not Applicable	See attached comments
(other project-specific alternatives considered by the applicant; attach additional sheets if necessary)			
7			
8			
9			

Pursuant to ADEM Administrative Code Rule 335-6-3-.04, I certify on behalf of the applicant that I have completed an evaluation of the discharge alternatives identified above, and reached the conclusions indicated.

Signature: Michael L. Ellison

Date: 03/30/12

(Professional Engineer)

23757

ENGINEER

MICHAEL L. ELLISON

(Supporting documentation to be attached, referenced, or otherwise handled as appropriate.)

ADEM Form 311**Alternatives Analysis Comments****Merichem Company/JeSOL-9 Process**

Alternative

1 - Land Application	Land application was not considered by Merichem due to the availability of wastewater discharge to the City of Tuscaloosa sanitary sewer system through an existing State Indirect Discharge (SID) permit (IU 39-63-00012). In addition, there were limitations regarding potential on site land application, including additional sampling and monitoring of surface and subsurface soil and groundwater.
2 - Pretreatment/Discharge to POTW	The SID permit was modified for the inclusion of the JeSOL-9 project at the facility and issued by ADEM on December 1, 2011. This method of wastewater discharge has been chosen by Merichem as the most viable method of discharge for this process. Existing infrastructure was utilized to add this process at the facility and none of the raw materials, process materials, or wastewater discharge is expected to come into contact with stormwater at the facility. Any contaminated stormwater within the process containment area is contained and treated through the SID discharge to the POTW.
3 - Relocation of Discharge	It was not necessary to relocate the wastewater discharge for this process. The JeSOL-9 process wastewater is discharged to the City of Tuscaloosa sanitary sewer system through an existing State Indirect Discharge (SID) permit (IU 39-63-00012).
4 - Reuse/Recycle	There are no facilities available to capture and recycle/recycle stormwater runoff. The cost to further reuse/recycle process wastewater would have exceeded the cost to discharge to the City of Tuscaloosa sanitary sewer system through an existing SID permit (IU 39-63-00012).
5 - Process/Treatment Alternatives	Process/treatment alternatives were not considered due to the availability of process wastewater discharge to the City of Tuscaloosa sanitary sewer system through an existing SID permit (IU 39-63-00012). Discharge to the POTW would not require additional process or treatment prior to discharge; therefore, this option would have exceeded the cost to discharge to the SID permitted discharge.

6 - On-site/Sub-surface Disposal	<p>On-site/subsurface disposal was not considered by Merichem due to the availability of wastewater discharge to the City of Tuscaloosa sanitary sewer system through an existing SID permit (IU 39-63-00012). In addition, there were limitations regarding on-site disposal, such as not possessing enough acreage at the facility to safely apply the wastewater discharge at the active facility. Subsurface disposal through an underground injection control (UIC) permit would require maintenance of a permit and applicable fees. In addition, on-site/disposal through injection would require additional sampling and monitoring of surface and subsurface soil and groundwater; therefore this option would have exceeded the cost to discharge to the SID permitted discharge.</p>
----------------------------------	---

**Calculation of Total Annualized Project Costs
for Private-Sector Projects**

Capital Costs to be Financed (Supplied by applicant)	<u>\$ 100,000 (1)</u>
Interest rate for Financing (Expressed as a decimal)	<u>0.04 (i)</u>
Time Period of Financing (Assume 10 years*)	<u>10 years (n)</u>
Annualization Factor = $\frac{i}{(1+i)^{10} - 1} + i$	<u>.123 (2)</u>
Annualized Capital Cost [Calculate: (1) x (2)]	<u>\$ 12,300 (3)</u>
Annual Cost of Operation and Maintenance (including but not limited to monitoring, inspection, permitting fees, waste disposal charges, repair, administration and replacement)**	<u>\$ 4,000 (4)</u>
Total Annual Cost of Pollution Control Project [(3) + (4)]	<div style="border: 1px solid black; padding: 5px; display: inline-block;">\$ 16,300 (5)</div>

* While actual payback schedules may differ across projects and companies, assume equal annual payments over a 10-year period for consistency in comparing projects.

** For recurring costs that occur less frequently than once a year, pro rate the cost over the relevant number of years (e.g., for pumps replaced once every three years, include one-third of the cost in each year).

The capital cost to be financed is the estimated cost to reach full capacity and is pending approval.

The capital cost to be financed and the interest rate for financing are estimated and may vary at the time funding is approved.

SECTION J- RECEIVING WATERS

Receiving Water(s)	303(d) Segment? (Y / N)	Included in TMDL? (Y / N)
Black Warrior River	No	

*If a TMDL Compliance Schedule is requested, the following should be attached as supporting documentation:

- (1) Justification for the requested Compliance Schedule (e.g. time for design and installation of control equipment, etc.);
- (2) Monitoring results for the pollutant(s) of concern which have not previously been submitted to the Department (sample collection dates, analytical results (mass and concentration), methods utilized, MDL/ML, etc. should be submitted as available);
- (3) Requested interim limitations, if applicable;
- (4) Date of final compliance with the TMDL limitations; and,
- (5) Any other additional information available to support requested compliance schedule.

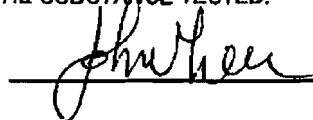
SECTION K - APPLICATION CERTIFICATION

THE INFORMATION CONTAINED IN THIS FORM MUST BE CERTIFIED BY A RESPONSIBLE OFFICIAL AS DEFINED IN ADEM ADMINISTRATIVE RULE 335-6-6-.09 "SIGNATORIES TO PERMIT APPLICATIONS AND REPORTS" (SEE BELOW).

"I CERTIFY UNDER PENALTY OF LAW THAT THIS DOCUMENT AND ALL ATTACHMENTS WERE PREPARED UNDER MY DIRECTION OR SUPERVISION IN ACCORDANCE WITH A SYSTEM DESIGNED TO ASSURE THAT QUALIFIED PERSONNEL PROPERLY GATHER AND EVALUATE THE INFORMATION SUBMITTED. BASED ON MY INQUIRY OF THE PERSON OR PERSONS WHO MANAGE THE SYSTEM, OR THOSE PERSONS DIRECTLY RESPONSIBLE FOR GATHERING THE INFORMATION, THE INFORMATION SUBMITTED IS, TO THE BEST OF MY KNOWLEDGE AND BELIEF, TRUE, ACCURATE, AND COMPLETE. I AM AWARE THAT THERE ARE SIGNIFICANT PENALTIES FOR SUBMITTING FALSE INFORMATION INCLUDING THE POSSIBILITY OF FINE AND IMPRISONMENT FOR KNOWING VIOLATIONS."

"I FURTHER CERTIFY UNDER PENALTY OF LAW THAT ALL ANALYSES REPORTED AS LESS THAN DETECTABLE IN THIS APPLICATION OR ATTACHMENTS THERETO WERE PERFORMED USING THE EPA APPROVED TEST METHOD HAVING THE LOWEST DETECTION LIMIT FOR THE SUBSTANCE TESTED."

SIGNATURE OF
RESPONSIBLE OFFICIAL:



DATE
SIGNED: 9/14/10

(TYPE OR PRINT)

NAME OF RESPONSIBLE OFFICIAL: John E. Greer

TITLE OF RESPONSIBLE OFFICIAL: Plant Manager

MAILING ADDRESS: 2701 Warrior Road

CITY, STATE, ZIP: Tuscaloosa, Alabama 35404

PHONE: (205) 462-2277

335-6-6-.09 SIGNATORIES TO PERMIT APPLICATIONS AND REPORTS.

- (1) The application for an NPDES permit shall be signed by a responsible official, as indicated below:
- (a) In the case of a corporation, by a principal executive officer of at least the level of vice president, or a manager assigned or delegated in accordance with corporate procedures, with such delegation submitted in writing if required by the Department, who is responsible for manufacturing, production, or operating facilities and is authorized to make management decisions which govern the operation of the regulated facility;
- (b) In the case of a partnership, by a general partner;
- (c) In the case of a sole proprietorship, by the proprietor; or
- (d) In the case of a municipal, state, federal, or other public entity, by either a principal executive officer, or ranking elected official.

SUPPLEMENTAL PETROLEUM APPLICATION INFORMATION
ADEM Form 516

- 1) Does the facility discharge to a public water supply stream segment as defined by ADEM
Administrative Code R. 335-6-11-.02? ☐ Yes ☒ No

This form must be signed by the official representative of the facility who is: the owner, the sole proprietor of a sole proprietorship, a general partner for a partnership, or by a ranking elected official or other duly authorized representative for a unit of government or an executive officer of at least the level of vice president for a corporation, having overall responsibility for the operation of the facility.

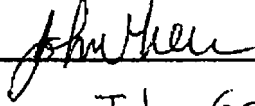
CERTIFICATION: I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information including the possibility of fine or imprisonment for knowing violations.

Permit Number (*if already a permitted facility): ALD0025330

Name and Official title (type or print): John E. Greer, Plant Manager

Address: 2701 Warrior Road, Tuscaloosa, Alabama 35404

Phone Number: (205) 462-2277

Signature: 

Please Print Name: John Greer

Date signed: 9/14/10

Please print or type in the unshaded areas only.

Form Approved. OMB No. 2040-0086.

FORM 1 GENERAL		U.S. ENVIRONMENTAL PROTECTION AGENCY GENERAL INFORMATION Consolidated Permits Program (Read the "General Instructions" before starting.)		I. EPA I.D. NUMBER ALD981002959		T/A C			
LABEL ITEMS				1		2			
I. EPA I.D. NUMBER		ALD981002959		13		14			
III. FACILITY NAME		Merichem Company		15		16			
V. FACILITY MAILING ADDRESS		2701 Warrior Road		17		18			
VI. FACILITY LOCATION		Tuscaloosa, Alabama 35404		19		20			
II. POLLUTANT CHARACTERISTICS				21		22			
<p>INSTRUCTIONS: Complete A through J to determine whether you need to submit any permit application forms to the EPA. If you answer "yes" to any questions, you must submit this form and the supplemental form listed in the parentheses following the question. Mark "X" in the box in the third column if the supplemental form is attached. If you answer "no" to each question, you need not submit any of these forms. You may answer "no" if your activity is excluded from permit requirements; see Section C of the instructions. See also, Section D of the instructions for definitions of bold-faced terms.</p>									
SPECIFIC QUESTIONS		Mark "X"		SPECIFIC QUESTIONS		Mark "X"			
A. Is this facility a publicly owned treatment works which results in a discharge to waters of the U.S. ? (FORM 2A)		YES	NO	FORM ATTACHED	B. Does or will this facility (<i>either existing or proposed</i>) include a concentrated animal feeding operation or aquatic animal production facility which results in a discharge to waters of the U.S. ? (FORM 2B)		YES	NO	FORM ATTACHED
		16	17	18			19	20	21
C. Is this a facility which currently results in discharges to waters of the U.S. other than those described in A or B above? (FORM 2C)		X		X	D. Is this a proposed facility (<i>other than those described in A or B above</i>) which will result in a discharge to waters of the U.S. ? (FORM 2D)			X	
		22	23	24			25	26	27
E. Does or will this facility treat, store, or dispose of hazardous wastes ? (FORM 3)			X		F. Do you or will you inject at this facility industrial or municipal effluent below the lowermost stratum containing, within one quarter mile of the well bore, underground sources of drinking water? (FORM 4)			X	
		28	29	30			31	32	33
G. Do you or will you inject at this facility any produced water or other fluids which are brought to the surface in connection with conventional oil or natural gas production, inject fluids used for enhanced recovery of oil or natural gas, or inject fluids for storage of liquid hydrocarbons? (FORM 4)			X		H. Do you or will you inject at this facility fluids for special processes such as mining of sulfur by the Frasch process, solution mining of minerals, in situ combustion of fossil fuel, or recovery of geothermal energy? (FORM 4)			X	
		34	35	36			37	38	39
I. Is this facility a proposed stationary source which is one of the 28 industrial categories listed in the instructions and which will potentially emit 100 tons per year of any air pollutant regulated under the Clean Air Act and may affect or be located in an attainment area? (FORM 5)			X		J. Is this facility a proposed stationary source which is NOT one of the 28 industrial categories listed in the instructions and which will potentially emit 250 tons per year of any air pollutant regulated under the Clean Air Act and may affect or be located in an attainment area? (FORM 5)			X	
		40	41	42			43	44	45
III. NAME OF FACILITY									
1 SKIP Merichem Company									
15 16 - 29 30 69									
IV. FACILITY CONTACT									
A. NAME & TITLE (<i>last, first, & title</i>)					B. PHONE (<i>area code & no.</i>)				
2 Greer, John, Plant Manager					(205) 462-2277				
15 16 45 46 48 49 51 52- 55									
V. FACILITY MAILING ADDRESS									
A. STREET OR P.O. BOX									
3 2701 Warrior Road, Tuscaloosa, Alabama									
15 16 45									
B. CITY OR TOWN					C. STATE		D. ZIP CODE		
4 Tuscaloosa					AL		35404		
15 16 40 41 42 47 51									
VI. FACILITY LOCATION									
A. STREET, ROUTE NO. OR OTHER SPECIFIC IDENTIFIER									
5 2701 Warrior Road									
15 16 45									
B. COUNTY NAME									
Tuscaloosa									
46 70									
C. CITY OR TOWN					D. STATE		E. ZIP CODE		F. COUNTY CODE (<i>if known</i>)
6 Tuscaloosa					AL		35404		
15 16 40 41 42 47 51 52 -54									

CONTINUED FROM THE FRONT

VII. SIC CODES (4-digit, in order of priority)

A. FIRST				B. SECOND			
7	2	9	11	(specify) Aliphatic hydrocarbons manufactured from purchased refinery products (2911-632)	7	2	819
(specify)				(specify) Industrial organic chemicals			
C. THIRD				D. FOURTH			
7	(specify)			7	(specify)		

VIII. OPERATOR INFORMATION

A. NAME		B. Is the name listed in Item VIII-A also the owner?
Merichem Company		<input checked="" type="checkbox"/> YES <input type="checkbox"/> NO
C. STATUS OF OPERATOR (Enter the appropriate letter into the answer box: If "Other," specify)		D. PHONE (area code & no.)
F = FEDERAL S = STATE P = PRIVATE	M = PUBLIC (other than federal or state) O = OTHER (specify)	A (205) 462-2277

E. STREET OR P.O. BOX	F. CITY OR TOWN	G. STATE	H. ZIP CODE	IX. INDIAN LAND
2701 Warrior Road	B Tuscaloosa	AL	35404	Is the facility located on Indian lands? <input type="checkbox"/> YES <input checked="" type="checkbox"/> NO

X. EXISTING ENVIRONMENTAL PERMITS

A. NPDES (Discharges to Surface Water)		D. PSD (Air Emissions from Proposed Sources)		E. OTHER (specify)	
9	N AL0025330	9	P NA	(specify) SID Permit	
B. UIC (Underground Injection of Fluids)		C. RCRA (Hazardous Wastes)		E. OTHER (specify)	
9	U NA	9	R ALD981002959	(specify) Various Air Permits	
E. OTHER (specify)		E. OTHER (specify)		AIR	
IU 39-63-0012		413-008 (various numbers)			

XI. MAP

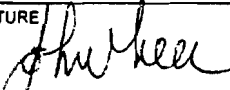
Attach to this application a topographic map of the area extending to at least one mile beyond property boundaries. The map must show the outline of the facility, the location of each of its existing and proposed intake and discharge structures, each of its hazardous waste treatment, storage, or disposal facilities, and each well where it injects fluids underground. Include all springs, rivers, and other surface water bodies in the map area. See instructions for precise requirements.

XII. NATURE OF BUSINESS (provide a brief description)

Manufacturer of naphthenic acid, which consists of chemically processing sodium naphthenate and crude naphthenic acid purchased from refineries to crude, semi-refined, refined naphthenic acids, and metal salts of naphthenic acid. The facility will also be manufacturing JeSOL-9.

XIII. CERTIFICATION (see instructions)

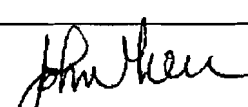
I certify under penalty of law that I have personally examined and am familiar with the information submitted in this application and all attachments and that, based on my inquiry of those persons immediately responsible for obtaining the information contained in the application, I believe that the information is true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment.

A. NAME & OFFICIAL TITLE (type or print)	B. SIGNATURE	C. DATE SIGNED
John E. Greer		9/14/10

COMMENTS FOR OFFICIAL USE ONLY

C

Please print or type in the unshaded areas only.		EPA ID Number (copy from Item 1 of Form 1)		Form Approved. OMB No. 2040-0086. Approval expires 5-31-92.			
FORM <div style="font-size: 2em; font-weight: bold;">2E</div> NPDES		<div style="display: inline-block; vertical-align: middle;"> Facilities Which Do Not Discharge Process Wastewater </div>					
I. RECEIVING WATERS							
For this outfall, list the latitude and longitude, and name of the receiving water(s).							
Outfall Number (list)	Latitude			Longitude		Receiving Water (name)	
	Deg	Min	Sec	Deg	Min	Sec	
DSN001	33	15	04	87	28	39	Black Warrior River
II. DISCHARGE DATE (If a new discharger, the date you expect to begin discharging)							
III. TYPE OF WASTE							
A. Check the box(es) indicating the general type(s) of wastes discharged.							
<input type="checkbox"/> Sanitary Wastes <input type="checkbox"/> Restaurant or Cafeteria Wastes <input checked="" type="checkbox"/> Noncontact Cooling Water <input type="checkbox"/> Other Nonprocess Wastewater (Identify)							
B. If any cooling water additives are used, list them here. Briefly describe their composition if this information is available. Not Applicable							
IV. EFFLUENT CHARACTERISTICS							
A. Existing Sources — Provide measurements for the parameters listed in the left-hand column below, unless waived by the permitting authority (see instructions). B. New Dischargers — Provide estimates for the parameters listed in the left-hand column below, unless waived by the permitting authority. Instead of the number of measurements taken, provide the source of estimated values (see instructions).							
Pollutant or Parameter	(1) Maximum Daily Value (include units)		(2) Average Daily Value (last year) (include units)		(3)	(or)	(4)
	Mass	Concentration	Mass	Concentration	Number of Measurements Taken (last year)		Source of Estimate (if new discharger)
Biochemical Oxygen Demand (BOD)	N/A	<2.0 mg/l	N/A	<2.0 mg/l	1		N/A
Total Suspended Solids (TSS)	1.52 lbs	9.20 mg/l	0.52	<3.08 mg/l	5		
Fecal Coliform (if believed present or if sanitary waste is discharged)	N/A	N/A	N/A	N/A	N/A		
Total Residual Chlorine (if chlorine is used)	N/A	N/A	N/A	N/A	N/A		
Oil and Grease	0.83 lbs	<5.0 mg/l	0.83	<5.0 mg/l	4		
*Chemical oxygen demand (COD)	1.66 lbs	4.01 mg/l	1.03 lbs	4.0 mg/l	1		
*Total organic carbon (TOC)	0.84 lbs	5.0 mg/l	0.84 lbs	4.0 mg/l	5		
Ammonia (as N)	N/A	<0.100 mg/l	N/A	<0.100 mg/l	1		
Discharge Flow	Value 0.019642 mgd		0.0196315 mgd		4		
pH (give range)	Value 6.4 - 7.81 s.u.		7.08 s.u.		5		
Temperature (Winter)	12.6 °C		12.6 °C		1		
Temperature (Summer)	24.5 °C		24.5 °C		2		
*If noncontact cooling water is discharged							

V. Except for leaks or spills, will the discharge described in this form be intermittent or seasonal? If yes, briefly describe the frequency of flow and duration.		<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
VI. TREATMENT SYSTEM (Describe briefly any treatment system(s) used or to be used)		
Not Applicable		
VII. OTHER INFORMATION (Optional)		
Use the space below to expand upon any of the above questions or to bring to the attention of the reviewer any other information you feel should be considered in establishing permit limitations. Attach additional sheets, if necessary.		
Not Applicable		
VIII. CERTIFICATION		
<i>I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.</i>		
A. Name & Official Title John E. Greer, Plant Manager	B. Phone No. (area code & no.) (205) 462-2277	
C. Signature 	D. Date Signed 9/14/10	

Please print or type in the unshaded areas only.

Continue on Page 2

SEP 17 2010

Continued from the Front

IV. Narrative Description of Pollutant Sources

A. For each outfall, provide an estimate of the area (include units) of impervious surfaces (including paved areas and building roofs) drained to the outfall, and an estimate of the total surface area drained by the outfall.

Outfall Number	Area of Impervious Surface (provide units)	Total Area Drained (provide units)	Outfall Number	Area of Impervious Surface (provide units)	Total Area Drained (provide units)
003	1.6 Acres	1.3 Acres	006	0.06 Acres	0.06 Acres
005	0.3 Acres	0.3 Acres			
006	1.1 Acres	1.24 Acres			
007	1.06 Acres	1.12 Acres			

B. Provide a narrative description of significant materials that are currently or in the past three years have been treated, stored or disposed in a manner to allow exposure to storm water; method of treatment, storage, or disposal; past and present materials management practices employed to minimize contact by these materials with storm water runoff; materials loading and access areas, and the location, manner, and frequency in which pesticides, herbicides, soil conditioners, and fertilizers are applied.

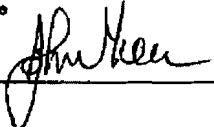
Raw materials and finished products are generally stored in bulk containers and do not come into contact with stormwater. Materials/products are generally only handled in areas that are self contained or have secondary containment. Materials/products are not loaded during rainfall events. Herbicides/pesticides/fertilizers/etc. are not used at the Merichem Chemicals & Refinery Services LLC facility.

C. For each outfall, provide the location and a description of existing structural and nonstructural control measures to reduce pollutants in storm water runoff; and a description of the treatment the storm water receives, including the schedule and type of maintenance for control and treatment measures and the ultimate disposal of any solid or fluid wastes other than by discharge.

Outfall Number	Treatment	List Codes from Table 2F-1
	Not Applicable	

V. Nonstormwater Discharges

A. I certify under penalty of law that the outfall(s) covered by this application have been tested or evaluated for the presence of nonstormwater discharges, and that all nonstormwater discharged from these outfall(s) are identified in either an accompanying Form 2C or Form 2E application for the outfall.

Name and Official Title (type or print)	Signature	Date Signed
John E. Greer, Plant Manager		9/14/10

B. Provide a description of the method used, the date of any testing, and the onsite drainage points that were directly observed during a test.

All outfalls have been visually inspected for non-stormwater discharges. Outfalls DSN003 and DSN008 are manually operated outfalls draining open containment structures. Outfall DSN007 is an open ditch conveying sheet flow with only a short section of pipe at the discharge point. Additionally all of the outfalls are routinely inspected during times of dry weather and no discharge, staining, sludge, etc. has been observed.

VI. Significant Leaks or Spills

Provide existing information regarding the history of significant leaks or spills of toxic or hazardous pollutants at the facility in the last three years, including the approximate date and location of the spill or leak, and the type and amount of material released.

Not Applicable

Continued from Page 2

EPA ID Number (copy from Item 1 of Form 1)
ALD981002959**VII. Discharge Information**

A, B, C, & D: See instructions before proceeding. Complete one set of tables for each outfall. Annotate the outfall number in the space provided.
Table VII-A, VII-B, VII-C are included on separate sheets numbers VII-1 and VII-2.

E. Potential discharges not covered by analysis – is any toxic pollutant listed in table 2F-2, 2F-3, or 2F-4, a substance or a component of a substance which you currently use or manufacture as an intermediate or final product or byproduct?

☐ Yes (list all such pollutants below)☒ No (go to Section IX)**VIII. Biological Toxicity Testing Data**

Do you have any knowledge or reason to believe that any biological test for acute or chronic toxicity has been made on any of your discharges or on a receiving water in relation to your discharge within the last 3 years?

☐ Yes (list all such pollutants below)☒ No (go to Section IX)**IX. Contract Analysis Information**

Were any of the analyses reported in Item VII performed by a contract laboratory or consulting firm?

☒ Yes (list the name, address, and telephone number of, and pollutants analyzed by, each such laboratory or firm below)☐ No (go to Section X)

A. Name	B. Address	C. Area Code & Phone No.	D. Pollutants Analyzed
Southern Environmental Testing, Inc.	3103 Northington Court Florence, Alabama 35630	(256) 740-5532	TOC, TSS, Oil & Grease, Copper, Iron, Magnesium, phenols, Molybdenum, and Zinc, Sulfate, Sulfite, BOD, COD, Cobalt, Nitrogen, Ammonia, Nitrate-Nitrite, Phosphorus
TTL	3516 Greensboro Avenue Tuscaloosa, Alabama 35401	(205) 345-0816	Oil & Grease, phenols, COD, BOD

X. Certification

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

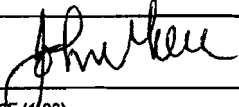
A. Name & Official Title (Type Or Print)

John E. Greer, Plant Manager

B. Area Code and Phone No.

(205) 462-2277

C. Signature



D. Date Signed

9/14/10

Part A – You must provide the results of at least one analysis for every pollutant in this table. Complete one table for each outfall. See instructions for additional details.

Part B – List each pollutant that is limited in an effluent guideline which the facility is subject to or any pollutant listed in the facility's NPDES permit for its process wastewater (if the facility is operating under an existing NPDES permit). Complete one table for each outfall. See the instructions for additional details and requirements.

Continue on Reverse

Continued from the Front

Part C - List each pollutant shown in Table 2F-2, 2F-3, and 2F-4 that you know or have reason to believe is present. See the instructions for additional details and requirements. Complete one table for each outfall.

[illegible]

Part D – Provide data for the storm event(s) which resulted in the maximum values for the flow weighted composite sample.

1. Date of Storm Event	2. Duration of Storm Event (in minutes)	3. Total rainfall during storm event (in inches)	4. Number of hours between beginning of storm measured and end of previous measurable rain event	5. Maximum flow rate during rain event (gallons/minute or specify units)	6. Total flow from rain event (gallons or specify units)
N/A					

7. Provide a description of the method of flow measurement or estimate.

Flow weighted sampling was not conducted. Outfall DSN003 is for draining a holding pond with a retention time of greater than 24 hours.

Part A – You must provide the results of at least one analysis for every pollutant in this table. Complete one table for each outfall. See instructions for additional details.

Part B – List each pollutant that is limited in an effluent guideline which the facility is subject to or any pollutant listed in the facility's NPDES permit for its process wastewater (if the facility is operating under an existing NPDES permit). Complete one table for each outfall. See the instructions for additional details and requirements.

EPA Form 3510-2F (1-92) Page VII-1 Continue on Reverse

Continued from the Front

Part C - List each pollutant shown in Table 2F-2, 2F-3, and 2F-4 that you know or have reason to believe is present. See the instructions for additional details and requirements. Complete one table for each outfall.

[illegible]

Part D – Provide data for the storm event(s) which resulted in the maximum values for the flow weighted composite sample.

1. Date of Storm Event	2. Duration of Storm Event (in minutes)	3. Total rainfall during storm event (in inches)	4. Number of hours between beginning of storm measured and end of previous measurable rain event	5. Maximum flow rate during rain event (gallons/minute or specify units)	6. Total flow from rain event (gallons or specify units)
10/07/2008	65 minutes	0.5 inches	~1,296 hours	N/A	15,094 gallons (estimated)

7. Provide a description of the method of flow measurement or estimate.

Flow estimated using a combination of the Rational Method for each drainage area and Pipe/Open Channel Hydraulics at the discharge location.

Part A – You must provide the results of at least one analysis for every pollutant in this table. Complete one table for each outfall. See instructions for additional details.

Part B –	List each pollutant that is limited in an effluent guideline which the facility is subject to or any pollutant listed in the facility's NPDES permit for its process wastewater (if the facility is operating under an existing NPDES permit). Complete one table for each outfall. See the instructions for additional details and requirements.
----------	---

Continue on Reverse

Continued from the Front

Part C - List each pollutant shown in Table 2F-2, 2F-3, and 2F-4 that you know or have reason to believe is present. See the instructions for additional details and requirements. Complete one table for each outfall.

[illegible]

Part D – Provide data for the storm event(s) which resulted in the maximum values for the flow weighted composite sample.

1. Date of Storm Event	2. Duration of Storm Event (in minutes)	3. Total rainfall during storm event (in inches)	4. Number of hours between beginning of storm measured and end of previous measurable rain event	5. Maximum flow rate during rain event (gallons/minute or specify units)	6. Total flow from rain event (gallons or specify units)
10/07/2008	65 minutes	0.5 inches	~1,296 hours	N/A	13,747 gallons (estimated)

7. Provide a description of the method of flow measurement or estimate.

Flow estimated using a combination of the Rational Method for each drainage area and Pipe/Open Channel Hydraulics at the discharge location.

VII. Discharge information (Continued from page 3 of Form 2F)

Part A – You must provide the results of at least one analysis for every pollutant in this table. Complete one table for each outfall. See instructions for additional details.

Pollutant and CAS Number (if available)	Maximum Values (include units)		Average Values (include units)		Number of Storm Events Sampled	Sources of Pollutants
	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite		
Oil and Grease	<5.0 mg/l	N/A	<5.0 mg/l	N/A	4	DSN008
Biological Oxygen Demand (BOD5)	12.2 mg/l	N/A	N/A	N/A	1	
Chemical Oxygen Demand (COD)	64.0 mg/l	N/A	N/A	N/A	1	
Total Suspended Solids (TSS)	18.0 mg/l	N/A	N/A	N/A	1	
Total Nitrogen	1.85 mg/l	N/A	N/A	N/A	1	
Total Phosphorus	<0.10 mg/l	N/A	<0.10 mg/l	N/A	1	
pH	Minimum 6.19	Maximum 7.28	Minimum 6.19	Maximum 7.28	4	

Part B – List each pollutant that is limited in an effluent guideline which the facility is subject to or any pollutant listed in the facility's NPDES permit for its process wastewater (if the facility is operating under an existing NPDES permit). Complete one table for each outfall. See the instructions for additional details and requirements.

[illegible]

Continued from the Front

Part C - List each pollutant shown in Table 2F-2, 2F-3, and 2F-4 that you know or have reason to believe is present. See the instructions for additional details and requirements. Complete one table for each outfall.

[illegible]

Part D – Provide data for the storm event(s) which resulted in the maximum values for the flow weighted composite sample.

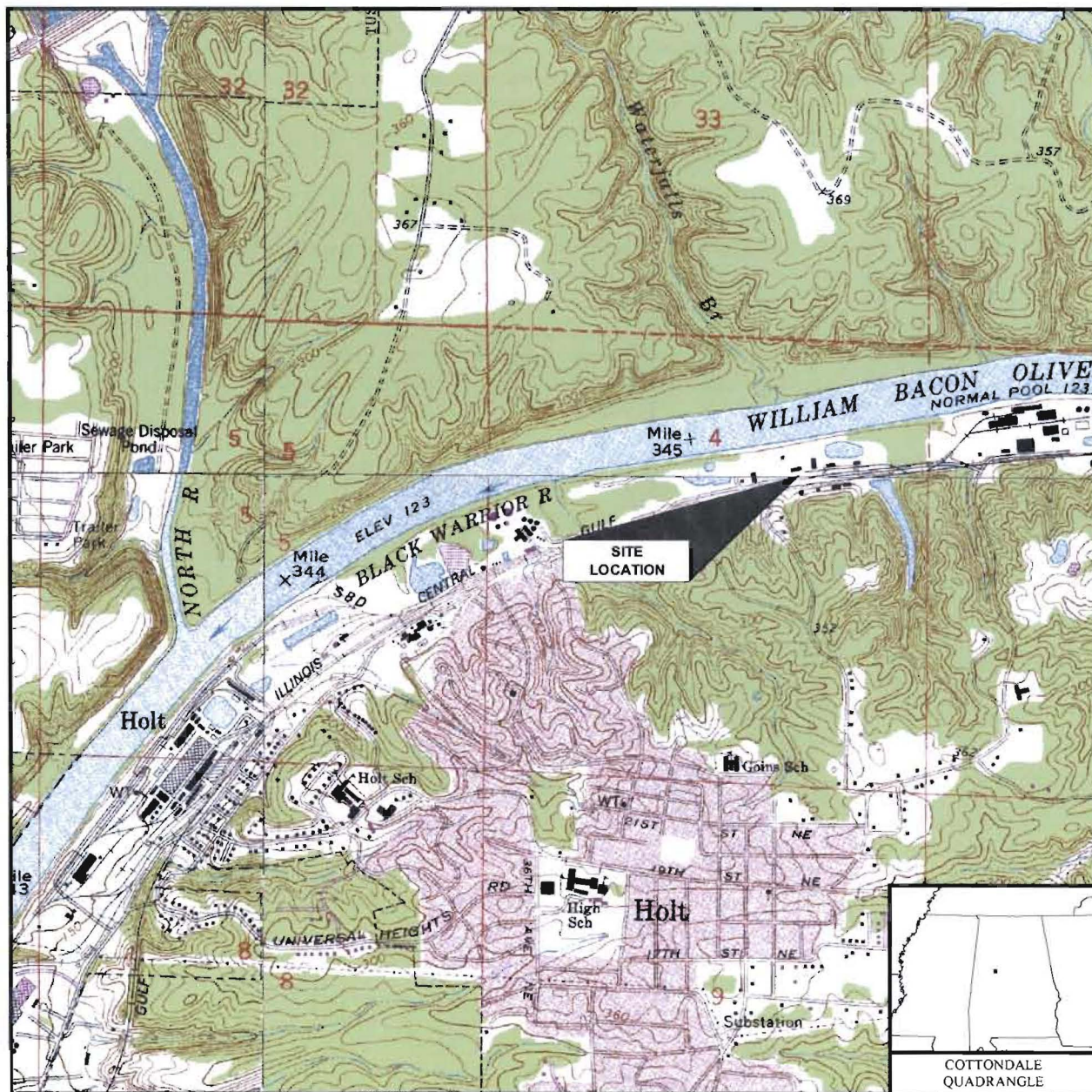
1. Date of Storm Event	2. Duration of Storm Event (in minutes)	3. Total rainfall during storm event (in inches)	4. Number of hours between beginning of storm measured and end of previous measurable rain event	5. Maximum flow rate during rain event (gallons/minute or specify units)	6. Total flow from rain event (gallons or specify units)
N/A					

7. Provide a description of the method of flow measurement or estimate.

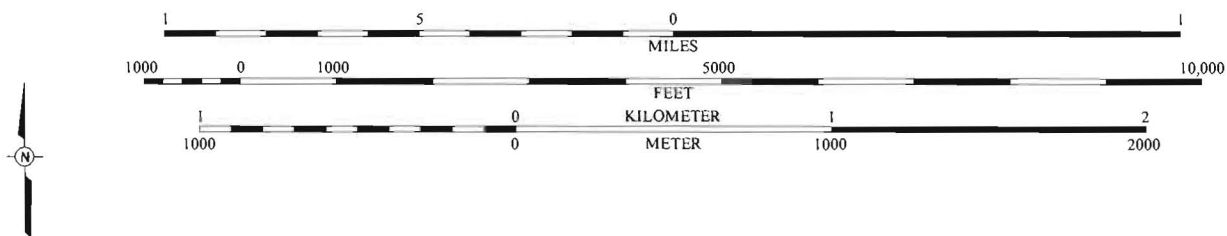
Flow weighted sampling not conducted. Outfall DSN008 is for draining a concrete dike with a retention time of greater than 24 hours.

FIGURES

Z:\Merichem Chemicals and Refinery Services LLC\41301\1PMTG11\41301-PMTG11.dwg, 1 Site Location Map, 9/13/2010 3:27:31 PM, Mike Rawls



SCALE: 1 : 24,000



PPM CONSULTANTS, INC.

DRAWN BY:

MLR

DRAWN DATE:

09/09/10

PROJECT NUMBER:

441301

BILLING GROUP:

PMTG11

MERICHEM COMPANY
2701 WARRIOR ROAD
TUSCALOOSA, ALABAMA

SITE LOCATION MAP

FIGURE
NUMBER

1

Z:\Merichem Chemicals and Refinery Services\LC441301\PMTG11\441301-PMTG11.dwg, 2 Site Map, 9/13/2010 3:27:49 PM, Mike Rawls



PPM CONSULTANTS, INC.	
DRAWN BY:	DRAWN DATE:
MLR	09/09/10
PROJECT NUMBER:	BILLING GROUP:
441301	PMTG11

MERICHEM COMPANY
MERICHEM COMPANY
2701 WARRIOR ROAD
TUSCALOOSA, ALABAMA

SITE MAP

FIGURE
NUMBER

2

Z:\Merichem Chemicals and Refinery Services LLC\441301\PMTG\1441301-PMTG11.dwg, 3 Outfall Location Map, 9/13/2010 3:27:56 PM, Mike Rawls

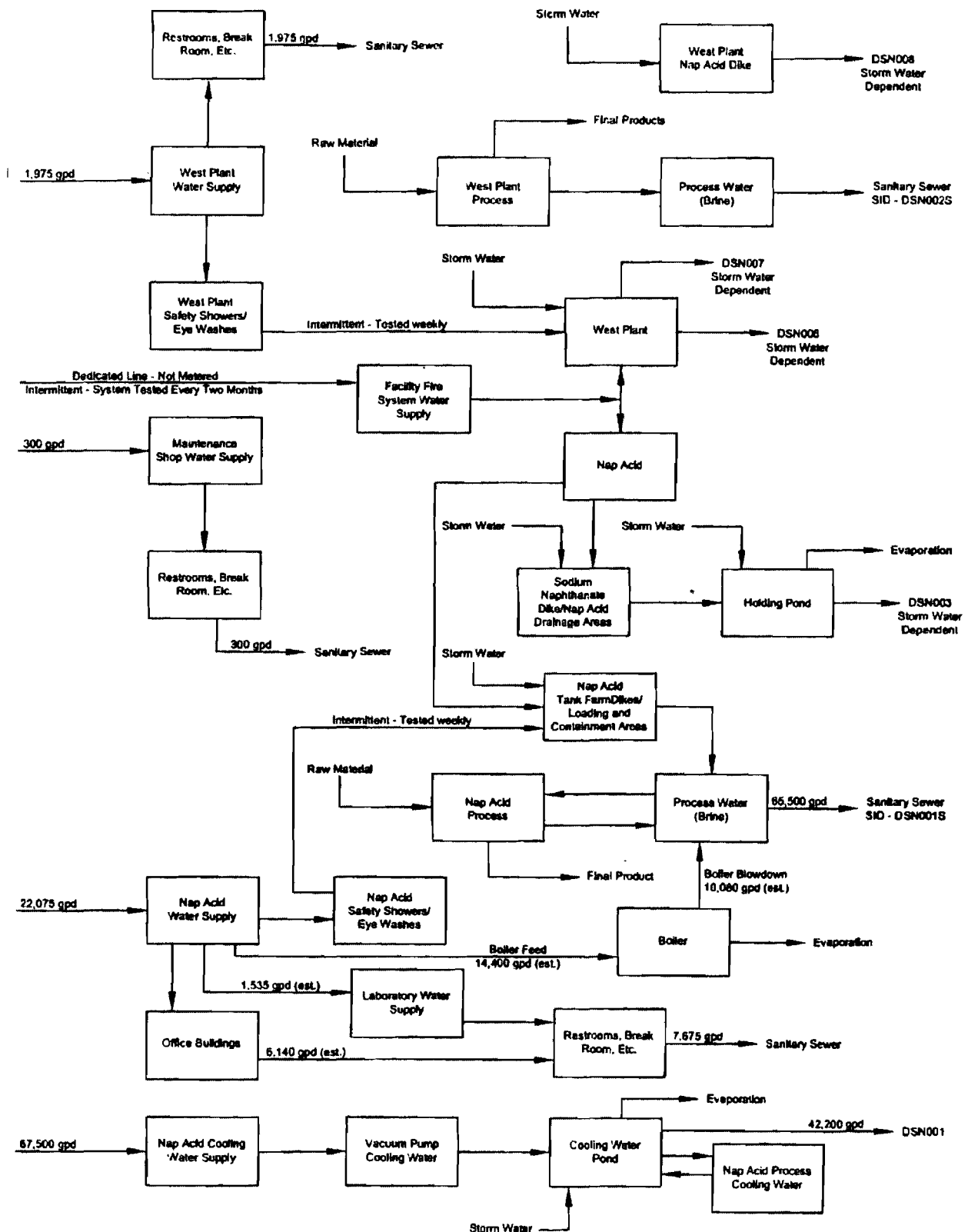


PPM PPM CONSULTANTS, INC.	
DRAWN BY:	DRAWN DATE:
MLR	09/09/10
PROJECT NUMBER:	BILLING GROUP:
441301	PMTG11

MERICHEM COMPANY
MERICHEM COMPANY
2701 WARRIOR ROAD
TUSCALOOSA, ALABAMA

OUTFALL LOCATION MAP

Z:\Merichem Chemicals and Refinery Services LLC\441301\PMGTG11\441301-PMGTG11.dwg, 4 Conceptual Site Model, 9/13/2010 3:28:00 PM, Mike Rawls



PPM

PPM CONSULTANTS, INC.

DRAWN BY:

MLR

DRAWN DATE:

09/09/10

PROJECT NUMBER:

441301

BILLING GROUP:

PMTG11

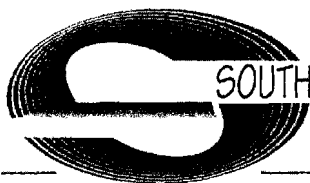
MERICHEM COMPANY
MERICHEM COMPANY
 2701 WARRIOR ROAD
 TUSCALOOSA, ALABAMA

**CONCEPTUAL SITE
 MODEL**

FIGURE
 NUMBER

4

LABORATORY ANALYTICAL RESULTS



SOUTHERN ENVIRONMENTAL TESTING, INC.

P.O. Box 487
3103 Northington Court
Florence, Alabama 35630

(256) 740-5532
Fax (256) 740-5529

TEST RESULTS

Merichem Company
Mary Green
2701 Warrior Road
Tuscaloosa, AL 35404

Project:	Lab Number:	901338
Project Number:	Sample Number:	001
Sample Location:	Sample Type:	Stormwater
Sampled By:	Date Received:	7/9/09 12:00
Date/Time Collected:	Date Reported:	9/2/2010
Client Sample ID:	CP008284	

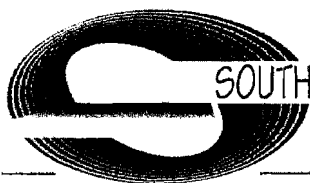
Parameter	Result	Qual	Units	Report Limit	Date	Method	Analyst
Oil and Grease	<5.0		mg/L	5	7/14/09 14:35	1664 (1)	RHC

Report Approved By:

Thomas P. Murray, Ph.D.

~METHOD REFERENCES~

- (1) Methods for Chemical Analysis of Water and Wastes, EPA-600/4-79-020, revised March 1993, August 1993, May 1994.
- (2) Standard Methods for the Examination of Water and Waste Water, 18th Edition, 1992.
- (3) Test Methods for Evaluating Solid Wastes Physical Chemical Method SW-846, 3rd Edition, Update IV December 1996.
- (4) HACH Handbook of Water Analysis, HACH Chemical Company, 1979.
- (5) Methods for the Determination of Organic Compounds in Drinking Water, EPA-600/4-88/039, Revised July, 1991, August 1995.



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Florence, Alabama 35630

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Fax (256) 740-5529

TEST RESULTS

Merichem Company
Mary Green
2701 Warrior Road
Tuscaloosa, AL 35404

Project:		Lab Number:	901338
Project Number:		Sample Number:	002
Sample Location:		Sample Type:	Stormwater
Sampled By:		Date Received:	7/9/09 12:00
Date/Time Collected:	7/6/09 10:20	Date Reported:	9/2/2010
Client Sample ID:	CP008284		

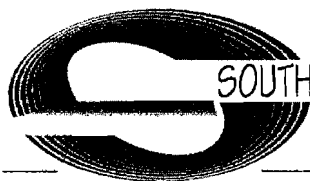
Parameter	Result	Qual	Units	Report Limit	Date	Method	Analyst
Phosphorus, Total	<0.10		mg/L	0.1	7/9/09 15:00	4500P (2)	
Total Organic Carbon	5.6		mg/L	1	7/23/09 15:17	5310C (2)	

Report Approved By: _____

Thomas P. Murray, Ph.D.

~METHOD REFERENCES~

- (1) Methods for Chemical Analysis of Water and Wastes, EPA-600/4-79-020, revised March 1993, August 1993, May 1994.
- (2) Standard Methods for the Examination of Water and Waste Water, 18th Edition, 1992.
- (3) Test Methods for Evaluating Solid Wastes Physical Chemical Method SW-846, 3rd Edition, Update IV December 1996.
- (4) HACH Handbook of Water Analysis, HACH Chemical Company, 1979.
- (5) Methods for the Determination of Organic Compounds in Drinking Water, EPA-600/4-88/039, Revised July, 1991, August 1995.



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TEST RESULTS

Merichem Company
Mary Green
2701 Warrior Road
Tuscaloosa, AL 35404

Project:	Lab Number:	901338
Project Number:	Sample Number:	003
Sample Location:	Sample Type:	Stormwater
Sampled By:	Date Received:	7/9/09 12:00
Date/Time Collected:	Date Reported:	9/2/2010
Client Sample ID:		CP008284

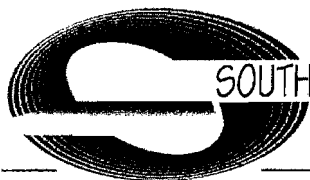
Parameter	Result	Qual	Units	Report Limit	Date	Method	Analyst
Copper, total	0.0223		mg/L	0.02	7/10/09 15:45	200.7 (1)	MKP
Iron, total	0.0796		mg/L	0.02	7/10/09 15:45	200.7 (1)	MKP
Magnesium, total	0.180		mg/L	0.02	7/10/09 15:45	200.7 (1)	MKP

Report Approved By:

Thomas P. Murray, Ph.D.

~METHOD REFERENCES~

- (1) Methods for Chemical Analysis of Water and Wastes, EPA-600/4-79-020, revised March 1993, August 1993, May 1994.
- (2) Standard Methods for the Examination of Water and Waste Water, 18th Edition, 1992.
- (3) Test Methods for Evaluating Solid Wastes Physical Chemical Method SW-846, 3rd Edition, Update IV December 1996.
- (4) HACH Handbook of Water Analysis, HACH Chemical Company, 1979.
- (5) Methods for the Determination of Organic Compounds in Drinking Water, EPA-600/4-88/039, Revised July, 1991, August 1995.



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TEST RESULTS

Merichem Company
Mary Green
2701 Warrior Road
Tuscaloosa, AL 35404

Project:		Lab Number:	901337
Project Number:		Sample Number:	001
Sample Location:		Sample Type:	Stormwater
Sampled By:		Date Received:	7/9/09 12:00
Date/Time Collected:	7/6/09 10:21	Date Reported:	9/2/2010
Client Sample ID:	CP008283		

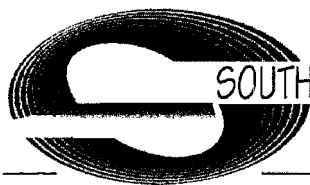
Parameter	Result	Qual	Units	Report Limit	Date	Method	Analyst
Total Organic Carbon	6.4		mg/L	1	7/23/09 15:17	5310C (2)	

Report Approved By:

Thomas P. Murray, Ph.D.

~METHOD REFERENCES~

- (1) Methods for Chemical Analysis of Water and Wastes, EPA-600/4-79-020, revised March 1993, August 1993, May 1994.
- (2) Standard Methods for the Examination of Water and Waste Water, 18th Edition, 1992.
- (3) Test Methods for Evaluating Solid Wastes Physical Chemical Method SW-846, 3rd Edition, Update IV December 1996.
- (4) HACH Handbook of Water Analysis, HACH Chemical Company, 1979.
- (5) Methods for the Determination of Organic Compounds in Drinking Water, EPA-600/4-88/039, Revised July, 1991, August 1995.



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TEST RESULTS

Merichem Company
Mary Green
2701 Warrior Road
Tuscaloosa, AL 35404

Project:	Lab Number:	901337
Project Number:	Sample Number:	002
Sample Location:	Sample Type:	Stormwater
Sampled By:	Date Received:	7/9/09 12:00
Date/Time Collected:	Date Reported:	9/2/2010
Client Sample ID:		CP008283

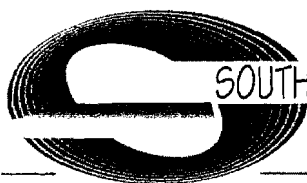
Parameter	Result	Qual	Units	Report Limit	Date	Method	Analyst
Oil and Grease	<5.0		mg/L	5	7/14/09 14:35	1664 (1)	RHC

Report Approved By:

Thomas P. Murray, Ph.D.

~METHOD REFERENCES~

- (1) Methods for Chemical Analysis of Water and Wastes, EPA-600/4-79-020, revised March 1993, August 1993, May 1994.
- (2) Standard Methods for the Examination of Water and Waste Water, 18th Edition, 1992.
- (3) Test Methods for Evaluating Solid Wastes Physical Chemical Method SW-846, 3rd Edition, Update IV December 1996.
- (4) HACH Handbook of Water Analysis, HACH Chemical Company, 1979.
- (5) Methods for the Determination of Organic Compounds in Drinking Water, EPA-600/4-88/039, Revised July, 1991, August 1995.



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TEST RESULTS

Merichem Company
Mary Green
2701 Warrior Road
Tuscaloosa, AL 35404

Project:	Lab Number:	901337
Project Number:	Sample Number:	003
Sample Location:	Sample Type:	Stormwater
Sampled By:	Date Received:	7/9/09 12:00
Date/Time Collected:	Date Reported:	9/2/2010
Client Sample ID:		CP008283

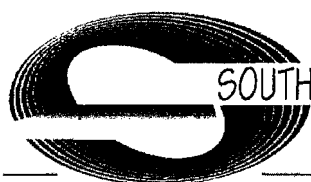
Parameter	Result	Qual	Units	Report Limit	Date	Method	Analyst
Copper, total	<0.0200		mg/L	0.02	7/10/09 15:24	200.7 (1)	MKP
Iron, total	0.104		mg/L	0.02	7/10/09 15:24	200.7 (1)	MKP
Magnesium, total	0.324		mg/L	0.02	7/10/09 15:24	200.7 (1)	MKP
Molybdenum, total	<0.0200		mg/L	0.02	7/10/09 15:24	200.7 (1)	MKP
Zinc, total	0.194		mg/L	0.02	7/10/09 15:24	200.7 (1)	MKP

Report Approved By:

Thomas P. Murray, Ph.D.

~METHOD REFERENCES~

- (1) Methods for Chemical Analysis of Water and Wastes, EPA-600/4-79-020, revised March 1993, August 1993, May 1994.
- (2) Standard Methods for the Examination of Water and Waste Water, 18th Edition, 1992.
- (3) Test Methods for Evaluating Solid Wastes Physical Chemical Method SW-846, 3rd Edition, Update IV December 1996.
- (4) HACH Handbook of Water Analysis, HACH Chemical Company, 1979.
- (5) Methods for the Determination of Organic Compounds in Drinking Water, EPA-600/4-88/039, Revised July, 1991, August 1995.



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Florence, Alabama 35630

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TEST RESULTS

Merichem Company
Mary Green
2701 Warrior Road
Tuscaloosa, AL 35404

Project:	Lab Number:	901336
Project Number:	Sample Number:	001
Sample Location:	Sample Type:	Stormwater
Sampled By:	Date Received:	7/9/09 12:00
Date/Time Collected:	Date Reported:	9/2/2010
Client Sample ID:		CP008282

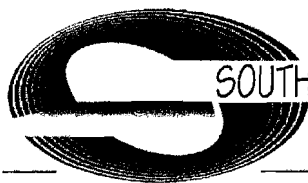
Parameter	Result	Qual	Units	Report Limit	Date	Method	Analyst
Total Organic Carbon	5.2		mg/L	1	7/23/09 15:17	5310C (2)	

Report Approved By:

Thomas P. Murray, Ph.D.

~METHOD REFERENCES~

- (1) Methods for Chemical Analysis of Water and Wastes, EPA-600/4-79-020, revised March 1993, August 1993, May 1994.
- (2) Standard Methods for the Examination of Water and Waste Water, 18th Edition, 1992.
- (3) Test Methods for Evaluating Solid Wastes Physical Chemical Method SW-846, 3rd Edition, Update IV December 1996.
- (4) HACH Handbook of Water Analysis, HACH Chemical Company, 1979.
- (5) Methods for the Determination of Organic Compounds in Drinking Water, EPA-600/4-88/039, Revised July, 1991, August 1995.



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Florence, Alabama 35630

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TEST RESULTS

Merichem Company
Mary Green
2701 Warrior Road
Tuscaloosa, AL 35404

Project:		Lab Number:	901336
Project Number:		Sample Number:	002
Sample Location:		Sample Type:	Stormwater
Sampled By:		Date Received:	7/9/09 12:00
Date/Time Collected:	7/6/09 10:19	Date Reported:	9/2/2010
Client Sample ID:	CP008282		

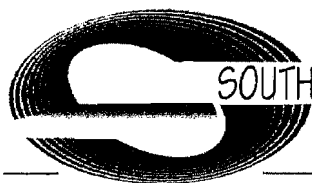
Parameter	Result	Qual	Units	Report Limit	Date	Method	Analyst
Copper, total	0.0235		mg/L	0.02	7/14/09 14:26	200.7 (1)	MKP
Iron, total	0.116		mg/L	0.02	7/10/09 15:13	200.7 (1)	MKP
Magnesium, total	0.335		mg/L	0.02	7/10/09 15:13	200.7 (1)	MKP

Report Approved By:

Thomas P. Murray, Ph.D.

~METHOD REFERENCES~

- (1) Methods for Chemical Analysis of Water and Wastes, EPA-600/4-79-020, revised March 1993, August 1993, May 1994.
- (2) Standard Methods for the Examination of Water and Waste Water, 18th Edition, 1992.
- (3) Test Methods for Evaluating Solid Wastes Physical Chemical Method SW-846, 3rd Edition, Update IV December 1996.
- (4) HACH Handbook of Water Analysis, HACH Chemical Company, 1979.
- (5) Methods for the Determination of Organic Compounds in Drinking Water, EPA-600/4-88/039, Revised July, 1991, August 1995.



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3103 Northington Court
Florence, Alabama 35630

(256) 740-5532
Fax (256) 740-5529

TEST RESULTS

Merichem Company
Mary Green
2701 Warrior Road
Tuscaloosa, AL 35404

Project:	008	Lab Number:	1001502
Project Number:		Sample Number:	001
Sample Location:	008	Sample Type:	Stormwater
Sampled By:		Date Received:	7/20/10 11:45
Date/Time Collected:	7/16/10 16:43	Date Reported:	9/2/2010
Client Sample ID:	CP010312		

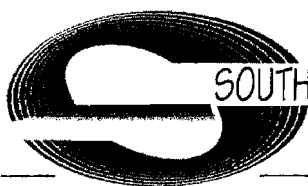
Parameter	Result	Qual	Units	Report Limit	Date	Method	Analyst
Oil and Grease	<5.0		mg/L	5	7/21/10 16:00	1664A (1)	RHC

Report Approved By:

Thomas P. Murray, Ph.D.

~METHOD REFERENCES~

- (1) Methods for Chemical Analysis of Water and Wastes, EPA-600/4-79-020, revised March 1993, August 1993, May 1994.
- (2) Standard Methods for the Examination of Water and Waste Water, 18th Edition, 1992.
- (3) Test Methods for Evaluating Solid Wastes Physical Chemical Method SW-846, 3rd Edition, Update IV December 1996.
- (4) HACH Handbook of Water Analysis, HACH Chemical Company, 1979.
- (5) Methods for the Determination of Organic Compounds in Drinking Water, EPA-600/4-88/039, Revised July, 1991, August 1995.



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Fax (256) 740-5529

TEST RESULTS

Merichem Company
Mary Green
2701 Warrior Road
Tuscaloosa, AL 35404

Project:	008	Lab Number:	1001502
Project Number:		Sample Number:	002
Sample Location:	008	Sample Type:	Stormwater
Sampled By:		Date Received:	7/20/10 11:45
Date/Time Collected:	7/16/10 16:43	Date Reported:	9/2/2010
Client Sample ID:	CP010312		

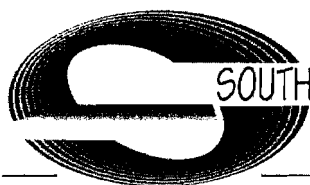
Parameter	Result	Qual	Units	Report Limit	Date	Method	Analyst
Phosphorus, Total	<0.10		mg/L	0.1	7/28/10 15:00	4500P (2)	MEF
Total Organic Carbon	6.5		mg/L	1	7/21/10 15:00	5310C (2)	

Report Approved By:

Thomas P. Murray, Ph.D.

~METHOD REFERENCES~

- (1) Methods for Chemical Analysis of Water and Wastes, EPA-600/4-79-020, revised March 1993, August 1993, May 1994.
- (2) Standard Methods for the Examination of Water and Waste Water, 18th Edition, 1992.
- (3) Test Methods for Evaluating Solid Wastes Physical Chemical Method SW-846, 3rd Edition, Update IV December 1996.
- (4) HACH Handbook of Water Analysis, HACH Chemical Company, 1979.
- (5) Methods for the Determination of Organic Compounds in Drinking Water, EPA-600/4-88/039, Revised July, 1991, August 1995



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TEST RESULTS

Merichem Company
Mary Green
2701 Warrior Road
Tuscaloosa, AL 35404

Project:	008	Lab Number:	1001502
Project Number:		Sample Number:	003
Sample Location:	008	Sample Type:	Stormwater
Sampled By:		Date Received:	7/20/10 11:45
Date/Time Collected:	7/16/10 16:43	Date Reported:	9/2/2010
Client Sample ID:	CP010312		

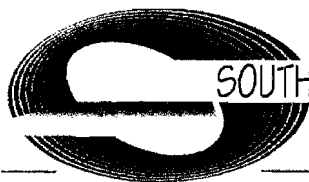
Parameter	Result	Qual	Units	Report Limit	Date	Method	Analyst
Copper, total	<0.0200		mg/L	0.02	7/22/10 11:22	200.7 (1)	MKP
Iron, total	0.270		mg/L	0.02	7/22/10 11:22	200.7 (1)	MKP
Magnesium, total	0.240		mg/L	0.02	7/22/10 11:22	200.7 (1)	MKP

Report Approved By:

Thomas P. Murray, Ph.D.

~METHOD REFERENCES~

- (1) Methods for Chemical Analysis of Water and Wastes, EPA-600/4-79-020, revised March 1993, August 1993, May 1994.
- (2) Standard Methods for the Examination of Water and Waste Water, 18th Edition, 1992.
- (3) Test Methods for Evaluating Solid Wastes Physical Chemical Method SW-846, 3rd Edition, Update IV December 1996.
- (4) HACH Handbook of Water Analysis, HACH Chemical Company, 1979.
- (5) Methods for the Determination of Organic Compounds in Drinking Water, EPA-600/4-88/039, Revised July, 1991, August 1995.



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TEST RESULTS

Merichem Company
Mary Green
2701 Warrior Road
Tuscaloosa, AL 35404

Project:	008	Lab Number:	1000757
Project Number:		Sample Number:	001
Sample Location:	008 SW	Sample Type:	Stormwater
Sampled By:		Date Received:	4/9/10 11:30
Date/Time Collected:	4/8/10 5:01	Date Reported:	9/2/2010
Client Sample ID:	CP009732		

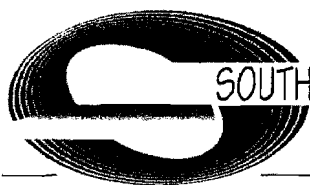
Parameter	Result	Qual	Units	Report Limit	Date	Method	Analyst
Oil and Grease	<5.0		mg/L	5	4/16/10 8:15	1664A (1)	RHC

Report Approved By:

Thomas P. Murray, Ph.D.

~METHOD REFERENCES~

- (1) Methods for Chemical Analysis of Water and Wastes, EPA-600/4-79-020, revised March 1993, August 1993, May 1994.
- (2) Standard Methods for the Examination of Water and Waste Water, 18th Edition, 1992.
- (3) Test Methods for Evaluating Solid Wastes Physical Chemical Method SW-846, 3rd Edition, Update IV December 1996.
- (4) HACH Handbook of Water Analysis, HACH Chemical Company, 1979.
- (5) Methods for the Determination of Organic Compounds in Drinking Water, EPA-600/4-88/039, Revised July, 1991, August 1995.



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TEST RESULTS

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2701 Warrior Road
Tuscaloosa, AL 35404

Project:	008	Lab Number:	1000757
Project Number:		Sample Number:	002
Sample Location:	008 SW	Sample Type:	Stormwater
Sampled By:		Date Received:	4/9/10 11:30
Date/Time Collected:	4/8/10 5:01	Date Reported:	9/2/2010
Client Sample ID:	CP009732		

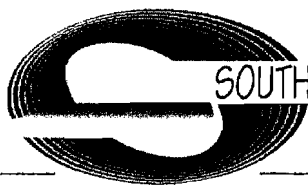
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Copper, total	<0.0200		mg/L	0.02	4/15/10 10:59	200.7 (1)	MKP
Iron, total	0.0491		mg/L	0.02	4/15/10 10:59	200.7 (1)	MKP
Magnesium, total	0.135		mg/L	0.02	4/15/10 10:59	200.7 (1)	MKP

Report Approved By: _____

Thomas P. Murray, Ph.D.

~METHOD REFERENCES~

- (1) Methods for Chemical Analysis of Water and Wastes, EPA-600/4-79-020, revised March 1993, August 1993, May 1994
- (2) Standard Methods for the Examination of Water and Waste Water, 18th Edition, 1992.
- (3) Test Methods for Evaluating Solid Wastes Physical Chemical Method SW-846, 3rd Edition, Update IV December 1996.
- (4) HACH Handbook of Water Analysis, HACH Chemical Company, 1979
- (5) Methods for the Determination of Organic Compounds in Drinking Water, EPA-600/4-88/039, Revised July, 1991, August 1995.



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TEST RESULTS

Merichem Company
Mary Green
2701 Warrior Road
Tuscaloosa, AL 35404

Project:	008	Lab Number:	1000757
Project Number:		Sample Number:	003
Sample Location:	008 SW	Sample Type:	Stormwater
Sampled By:		Date Received:	4/9/10 11:30
Date/Time Collected:	4/8/10 5:01	Date Reported:	9/2/2010
Client Sample ID:	CP009732		

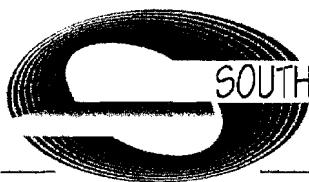
Parameter	Result	Qual	Units	Report Limit	Date	Method	Analyst
Phosphorus, Total	0.12		mg/L	0.1	4/14/10 14:00	4500P (2)	MEF

Report Approved By:

Thomas P. Murray, Ph.D.

~METHOD REFERENCES~

- (1) Methods for Chemical Analysis of Water and Wastes, EPA-600/4-79-020, revised March 1993, August 1993, May 1994.
- (2) Standard Methods for the Examination of Water and Waste Water, 18th Edition, 1992.
- (3) Test Methods for Evaluating Solid Wastes Physical Chemical Method SW-846, 3rd Edition, Update IV December 1996.
- (4) HACH Handbook of Water Analysis, HACH Chemical Company, 1979.
- (5) Methods for the Determination of Organic Compounds in Drinking Water, EPA-600/4-88/039, Revised July, 1991, August 1995.



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TEST RESULTS

Merichem Company
Mary Green
2701 Warrior Road
Tuscaloosa, AL 35404

Project:	008	Lab Number:	1000757
Project Number:		Sample Number:	004
Sample Location:	008 SW	Sample Type:	Stormwater
Sampled By:		Date Received:	4/9/10 11:30
Date/Time Collected:	4/8/10 5:01	Date Reported:	9/2/2010
Client Sample ID:	CP009732		

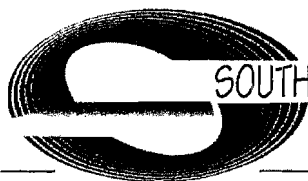
Parameter	Result	Qual	Units	Report Limit	Date	Method	Analyst
Total Organic Carbon	4.9		mg/L	1	4/19/10 14:34	5310C (2)	

Report Approved By:

Thomas P. Murray, Ph.D.

~METHOD REFERENCES~

- (1) Methods for Chemical Analysis of Water and Wastes, EPA-600/4-79-020, revised March 1993, August 1993, May 1994.
- (2) Standard Methods for the Examination of Water and Waste Water, 18th Edition, 1992.
- (3) Test Methods for Evaluating Solid Wastes Physical Chemical Method SW-846, 3rd Edition, Update IV December 1996.
- (4) HACH Handbook of Water Analysis, HACH Chemical Company, 1979.
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TEST RESULTS

Merichem Company
Mary Green
2701 Warrior Road
Tuscaloosa, AL 35404

Project:	008	Lab Number:	1000186
Project Number:		Sample Number:	001
Sample Location:	008	Sample Type:	Stormwater
Sampled By:		Date Received:	1/26/10 10:45
Date/Time Collected:	1/21/10 12:40	Date Reported:	9/2/2010
Client Sample ID:	CP009270		

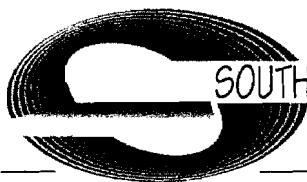
Parameter	Result	Qual	Units	Report Limit	Date	Method	Analyst
Oil and Grease	<5.0		mg/L	5	1/28/10 8:25	1664A (1)	RHC

Report Approved By: _____

Thomas P. Murray, Ph.D.

~METHOD REFERENCES~

- (1) Methods for Chemical Analysis of Water and Wastes, EPA-600/4-79-020, revised March 1993, August 1993, May 1994.
- (2) Standard Methods for the Examination of Water and Waste Water, 18th Edition, 1992.
- (3) Test Methods for Evaluating Solid Wastes Physical Chemical Method SW-846, 3rd Edition, Update IV December 1996.
- (4) HACH Handbook of Water Analysis, HACH Chemical Company, 1979.
- (5) Methods for the Determination of Organic Compounds in Drinking Water, EPA-600/4-88/039, Revised July, 1991, August 1995.



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TEST RESULTS

Merichem Company
Mary Green
2701 Warrior Road
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Project:	008	Lab Number:	1000186
Project Number:		Sample Number:	002
Sample Location:	008	Sample Type:	Stormwater
Sampled By:		Date Received:	1/26/10 10:45
Date/Time Collected:	1/21/10 12:40	Date Reported:	9/2/2010
Client Sample ID:	CP009270		

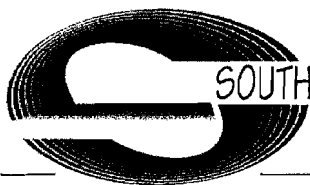
Parameter	Result	Qual	Units	Report Limit	Date	Method	Analyst
Copper, total	<0.0200		mg/L	0.02	1/26/10 14:34	200.7 (1)	MKP
Iron, total	0.405		mg/L	0.02	1/26/10 14:34	200.7 (1)	MKP
Magnesium, total	0.396		mg/L	0.02	1/26/10 14:34	200.7 (1)	MKP

Report Approved By:

Thomas P. Murray, Ph.D.

~METHOD REFERENCES~

- (1) Methods for Chemical Analysis of Water and Wastes, EPA-600/4-79-020, revised March 1993, August 1993, May 1994.
- (2) Standard Methods for the Examination of Water and Waste Water, 18th Edition, 1992.
- (3) Test Methods for Evaluating Solid Wastes Physical Chemical Method SW-846, 3rd Edition, Update IV December 1996.
- (4) HACH Handbook of Water Analysis, HACH Chemical Company, 1979.
- (5) Methods for the Determination of Organic Compounds in Drinking Water, EPA-600/4-88/039, Revised July, 1991, August 1995.



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TEST RESULTS

Merichem Company
Mary Green
2701 Warrior Road
Tuscaloosa, AL 35404

Project:	008	Lab Number:	1000186
Project Number:		Sample Number:	003
Sample Location:	008	Sample Type:	Stormwater
Sampled By:		Date Received:	1/26/10 10:45
Date/Time Collected:	1/21/10 12:40	Date Reported:	9/2/2010
Client Sample ID:	CP009270		

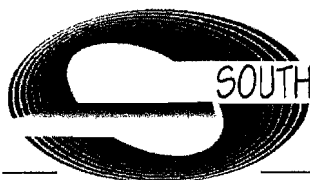
Parameter	Result	Qual	Units	Report Limit	Date	Method	Analyst
Phosphorus, Total	<0.10		mg/L	0.1	1/27/10 12:00	4500P (2)	MEF
Total Organic Carbon	3.2		mg/L	1	2/8/10 10:55	5310C (2)	

Report Approved By: _____

Thomas P. Murray, Ph.D.

~METHOD REFERENCES~

- (1) Methods for Chemical Analysis of Water and Wastes, EPA-600/4-79-020, revised March 1993, August 1993, May 1994.
- (2) Standard Methods for the Examination of Water and Waste Water, 18th Edition, 1992.
- (3) Test Methods for Evaluating Solid Wastes Physical Chemical Method SW-846, 3rd Edition, Update IV December 1996.
- (4) HACH Handbook of Water Analysis, HACH Chemical Company, 1979.
- (5) Methods for the Determination of Organic Compounds in Drinking Water, EPA-600/4-88/039, Revised July, 1991, August 1995.



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TEST RESULTS

Merichem Company
Mary Green
2701 Warrior Road
Tuscaloosa, AL 35404

Project:	008	Lab Number:	902028
Project Number:		Sample Number:	001
Sample Location:	008	Sample Type:	Stormwater
Sampled By:		Date Received:	10/8/09 11:15
Date/Time Collected:	10/4/09 20:29	Date Reported:	9/2/2010
Client Sample ID:	CP008754		

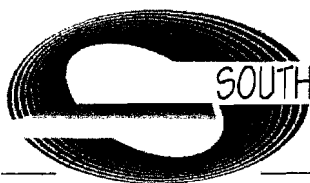
Parameter	Result	Qual	Units	Report Limit	Date	Method	Analyst
Oil and Grease	<5.0		mg/L	5	10/9/09 14:45	1664 (1)	RHC

Report Approved By:

Thomas P. Murray, Ph.D.

~METHOD REFERENCES~

- (1) Methods for Chemical Analysis of Water and Wastes, EPA-600/4-79-020, revised March 1993, August 1993, May 1994.
- (2) Standard Methods for the Examination of Water and Waste Water, 18th Edition, 1992.
- (3) Test Methods for Evaluating Solid Wastes Physical Chemical Method SW-846, 3rd Edition, Update IV December 1996.
- (4) HACH Handbook of Water Analysis, HACH Chemical Company, 1979.
- (5) Methods for the Determination of Organic Compounds in Drinking Water, EPA-600/4-88/039, Revised July, 1991, August 1995.



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TEST RESULTS

Merichem Company
Mary Green
2701 Warrior Road
Tuscaloosa, AL 35404

Project:	008	Lab Number:	902028
Project Number:		Sample Number:	002
Sample Location:	008	Sample Type:	Stormwater
Sampled By:		Date Received:	10/8/09 11:15
Date/Time Collected:	10/4/09 20:29	Date Reported:	9/2/2010
Client Sample ID:	CP008754		

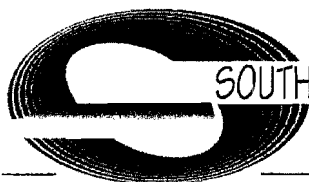
Parameter	Result	Qual	Units	Report Limit	Date	Method	Analyst
Phosphorus, Total	<0.10		mg/L	0.1	10/13/09 9:00	4500P (2)	MEF
Total Organic Carbon	2.3		mg/L	1	10/15/09 10:57	5310C (2)	

Report Approved By: _____

Thomas P. Murray, Ph.D.

~METHOD REFERENCES~

- (1) Methods for Chemical Analysis of Water and Wastes, EPA-600/4-79-020, revised March 1993, August 1993, May 1994.
- (2) Standard Methods for the Examination of Water and Waste Water, 18th Edition, 1992.
- (3) Test Methods for Evaluating Solid Wastes Physical Chemical Method SW-846, 3rd Edition, Update IV December 1996.
- (4) HACH Handbook of Water Analysis, HACH Chemical Company, 1979.
- (5) Methods for the Determination of Organic Compounds in Drinking Water, EPA-600/4-88/039, Revised July, 1991, August 1995.



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TEST RESULTS

Merichem Company
Mary Green
2701 Warrior Road
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Project:	008	Lab Number:	902028
Project Number:		Sample Number:	003
Sample Location:	008	Sample Type:	Stormwater
Sampled By:		Date Received:	10/8/09 11:15
Date/Time Collected:	10/4/09 20:29	Date Reported:	9/2/2010
Client Sample ID:	CP008754		

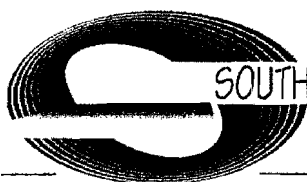
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Copper, total	0.437		mg/L	0.02	10/9/09 11:58	200.7 (1)	MKP
Iron, total	<0.0200		mg/L	0.02	10/9/09 11:57	200.7 (1)	MKP
Magnesium, total	0.275		mg/L	0.02	10/9/09 11:58	200.7 (1)	MKP

Report Approved By: _____

Thomas P. Murray, Ph.D.

~METHOD REFERENCES~

- (1) Methods for Chemical Analysis of Water and Wastes, EPA-600/4-79-020, revised March 1993, August 1993, May 1994.
- (2) Standard Methods for the Examination of Water and Waste Water, 18th Edition, 1992.
- (3) Test Methods for Evaluating Solid Wastes Physical Chemical Method SW-846, 3rd Edition, Update IV December 1996.
- (4) HACH Handbook of Water Analysis, HACH Chemical Company, 1979.
- (5) Methods for the Determination of Organic Compounds in Drinking Water, EPA-600/4-88/039, Revised July, 1991, August 1995.



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TEST RESULTS

Merichem Company
Mary Green
2701 Warrior Road
Tuscaloosa, AL 35404

Project:	007	Lab Number:	1001501
Project Number:		Sample Number:	001
Sample Location:	007	Sample Type:	Stormwater
Sampled By:		Date Received:	7/20/10 11:45
Date/Time Collected:	7/16/10 16:42	Date Reported:	9/2/2010
Client Sample ID:	CP010311		

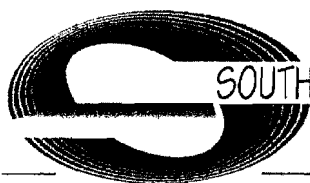
Parameter	Result	Qual	Units	Report Limit	Date	Method	Analyst
Oil and Grease	<5.0		mg/L	5	7/21/10 16:00	1664A (1)	RHC

Report Approved By:

Thomas P. Murray, Ph.D.

~METHOD REFERENCES~

- (1) Methods for Chemical Analysis of Water and Wastes, EPA-600/4-79-020, revised March 1993, August 1993, May 1994.
- (2) Standard Methods for the Examination of Water and Waste Water, 18th Edition, 1992.
- (3) Test Methods for Evaluating Solid Wastes Physical Chemical Method SW-846, 3rd Edition, Update IV December 1996.
- (4) HACH Handbook of Water Analysis, HACH Chemical Company, 1979.
- (5) Methods for the Determination of Organic Compounds in Drinking Water, EPA-600/4-88/039, Revised July, 1991, August 1995.



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TEST RESULTS

Merichem Company
Mary Green
2701 Warrior Road
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Project:	007	Lab Number:	1001501
Project Number:		Sample Number:	002
Sample Location:	007	Sample Type:	Stormwater
Sampled By:		Date Received:	7/20/10 11:45
Date/Time Collected:	7/16/10 16:42	Date Reported:	9/2/2010
Client Sample ID:	CP010311		

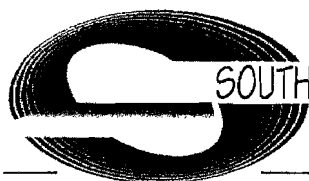
Parameter	Result	Qual	Units	Report Limit	Date	Method	Analyst
Total Organic Carbon	5.6		mg/L	1	7/21/10 15:00	5310C (2)	

Report Approved By:

Thomas P. Murray, Ph.D.

~METHOD REFERENCES~

- (1) Methods for Chemical Analysis of Water and Wastes, EPA-600/4-79-020, revised March 1993, August 1993, May 1994.
- (2) Standard Methods for the Examination of Water and Waste Water, 18th Edition, 1992.
- (3) Test Methods for Evaluating Solid Wastes Physical Chemical Method SW-846, 3rd Edition, Update IV December 1996.
- (4) HACH Handbook of Water Analysis, HACH Chemical Company, 1979.
- (5) Methods for the Determination of Organic Compounds in Drinking Water, EPA-600/4-88/039, Revised July, 1991, August 1995.



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TEST RESULTS

Merichem Company
Mary Green
2701 Warrior Road
Tuscaloosa, AL 35404

Project:	007	Lab Number:	1001501
Project Number:		Sample Number:	003
Sample Location:	007	Sample Type:	Stormwater
Sampled By:		Date Received:	7/20/10 11:45
Date/Time Collected:	7/16/10 16:42	Date Reported:	9/2/2010
Client Sample ID:	CP010311		

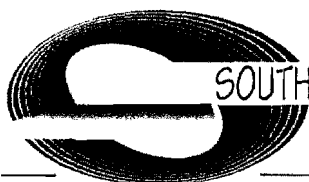
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Copper, total	0.0347		mg/L	0.02	7/22/10 11:24	200.7 (1)	MKP
Iron, total	1.44		mg/L	0.02	7/22/10 11:24	200.7 (1)	MKP
Magnesium, total	0.487		mg/L	0.02	7/22/10 11:24	200.7 (1)	MKP
Molybdenum, total	<0.0200		mg/L	0.02	7/22/10 11:25	200.7 (1)	MKP
Zinc, total	0.0630		mg/L	0.02	7/22/10 11:26	200.7 (1)	MKP

Report Approved By:

Thomas P. Murray, Ph.D.

~METHOD REFERENCES~

- (1) Methods for Chemical Analysis of Water and Wastes, EPA-600/4-79-020, revised March 1993, August 1993, May 1994.
- (2) Standard Methods for the Examination of Water and Waste Water, 18th Edition, 1992.
- (3) Test Methods for Evaluating Solid Wastes Physical Chemical Method SW-846, 3rd Edition, Update IV December 1996.
- (4) HACH Handbook of Water Analysis, HACH Chemical Company, 1979.
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(256) 740-5532
Fax (256) 740-5529

TEST RESULTS

Merichem Company
Mary Green
2701 Warrior Road
Tuscaloosa, AL 35404

Project:	007	Lab Number:	1000756
Project Number:		Sample Number:	001
Sample Location:	007 SW	Sample Type:	Stormwater
Sampled By:		Date Received:	4/9/10 11:30
Date/Time Collected:	4/8/10 5:01	Date Reported:	9/2/2010
Client Sample ID:	CP009731		

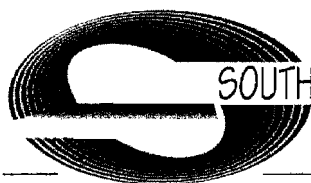
Parameter	Result	Qual	Units	Report Limit	Date	Method	Analyst
Oil and Grease	<5.0		mg/L	5	4/14/10 8:20	1664A (1)	RHC

Report Approved By:

Thomas P. Murray, Ph.D.

~METHOD REFERENCES~

- (1) Methods for Chemical Analysis of Water and Wastes, EPA-600/4-79-020, revised March 1993, August 1993, May 1994.
- (2) Standard Methods for the Examination of Water and Waste Water, 18th Edition, 1992.
- (3) Test Methods for Evaluating Solid Wastes Physical Chemical Method SW-846, 3rd Edition, Update IV December 1996.
- (4) HACH Handbook of Water Analysis, HACH Chemical Company, 1979.
- (5) Methods for the Determination of Organic Compounds in Drinking Water, EPA-600/4-88/039, Revised July, 1991, August 1995.



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TEST RESULTS

Merichem Company
Mary Green
2701 Warrior Road
Tuscaloosa, AL 35404

Project:	007	Lab Number:	1000756
Project Number:		Sample Number:	002
Sample Location:	007 SW	Sample Type:	Stormwater
Sampled By:		Date Received:	4/9/10 11:30
Date/Time Collected:	4/8/10 5:01	Date Reported:	9/2/2010
Client Sample ID:	CP009731		

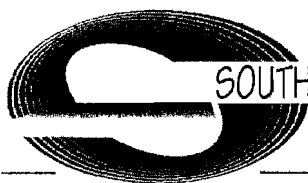
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Copper, total	<0.0200		mg/L	0.02	4/15/10 11:01	200.7 (1)	MKP
Iron, total	0.0881		mg/L	0.02	4/15/10 11:01	200.7 (1)	MKP
Magnesium, total	0.0333		mg/L	0.02	4/15/10 11:01	200.7 (1)	MKP
Molybdenum, total	<0.0200		mg/L	0.02	4/15/10 11:01	200.7 (1)	MKP
Zinc, total	0.109		mg/L	0.02	4/15/10 11:01	200.7 (1)	MKP

Report Approved By:

Thomas P. Murray, Ph.D.

~METHOD REFERENCES~

- (1) Methods for Chemical Analysis of Water and Wastes, EPA-600/4-79-020, revised March 1993, August 1993, May 1994.
- (2) Standard Methods for the Examination of Water and Waste Water, 18th Edition, 1992.
- (3) Test Methods for Evaluating Solid Wastes Physical Chemical Method SW-846, 3rd Edition, Update IV December 1996.
- (4) HACH Handbook of Water Analysis, HACH Chemical Company, 1979.
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TEST RESULTS

Merichem Company
Mary Green
2701 Warrior Road
Tuscaloosa, AL 35404

Project:	007	Lab Number:	1000756
Project Number:		Sample Number:	003
Sample Location:	007 SW	Sample Type:	Stormwater
Sampled By:		Date Received:	4/9/10 11:30
Date/Time Collected:	4/8/10 5:01	Date Reported:	9/2/2010
Client Sample ID:	CP009731		

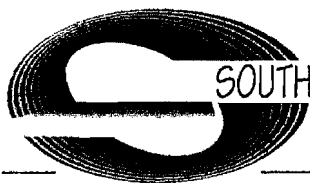
Parameter	Result	Qual	Units	Report Limit	Date	Method	Analyst
Total Organic Carbon	1.4		mg/L	1	4/19/10 14:34	5310C (2)	

Report Approved By: _____

Thomas P. Murray, Ph.D.

~METHOD REFERENCES~

- (1) Methods for Chemical Analysis of Water and Wastes, EPA-600/4-79-020, revised March 1993, August 1993, May 1994.
- (2) Standard Methods for the Examination of Water and Waste Water, 18th Edition, 1992.
- (3) Test Methods for Evaluating Solid Wastes Physical Chemical Method SW-846, 3rd Edition, Update IV December 1996.
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TEST RESULTS

Merichem Company
Mary Green
2701 Warrior Road
Tuscaloosa, AL 35404

Project:	007	Lab Number:	1000165
Project Number:		Sample Number:	001
Sample Location:	007	Sample Type:	Stormwater
Sampled By:		Date Received:	1/22/10 13:30
Date/Time Collected:	1/20/10 22:33	Date Reported:	9/2/2010
Client Sample ID:	CP009268		

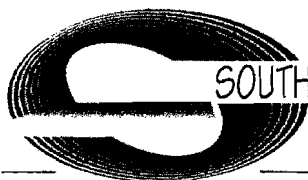
Parameter	Result	Qual	Units	Report Limit	Date	Method	Analyst
Oil and Grease	<5.0		mg/L	5	1/27/10 12:50	1664A (1)	RHC

Report Approved By:

Thomas P. Murray, Ph.D.

~METHOD REFERENCES~

- (1) Methods for Chemical Analysis of Water and Wastes, EPA-600/4-79-020, revised March 1993, August 1993, May 1994.
- (2) Standard Methods for the Examination of Water and Waste Water, 18th Edition, 1992.
- (3) Test Methods for Evaluating Solid Wastes Physical Chemical Method SW-846, 3rd Edition, Update IV December 1996
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TEST RESULTS

Merichem Company
Mary Green
2701 Warrior Road
Tuscaloosa, AL 35404

Project:	007	Lab Number:	1000165
Project Number:		Sample Number:	002
Sample Location:	007	Sample Type:	Stormwater
Sampled By:		Date Received:	1/22/10 13:30
Date/Time Collected:	1/20/10 22:33	Date Reported:	9/2/2010
Client Sample ID:	CP009268		

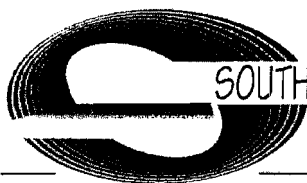
Parameter	Result	Qual	Units	Report Limit	Date	Method	Analyst
Copper, total	0.0985		mg/L	0.02	1/26/10 12:45	200.7 (1)	MKP
Iron, total	0.411		mg/L	0.02	1/26/10 12:45	200.7 (1)	MKP
Magnesium, total	0.287		mg/L	0.02	1/26/10 12:45	200.7 (1)	MKP
Molybdenum, total	<0.0200		mg/L	0.02	1/26/10 12:45	200.7 (1)	MEF
Zinc, total	0.325		mg/L	0.02	1/26/10 12:45	200.7 (1)	MKP

Report Approved By:

Thomas P. Murray, Ph.D.

~METHOD REFERENCES~

- (1) Methods for Chemical Analysis of Water and Wastes, EPA-600/4-79-020, revised March 1993, August 1993, May 1994.
- (2) Standard Methods for the Examination of Water and Waste Water, 18th Edition, 1992.
- (3) Test Methods for Evaluating Solid Wastes Physical Chemical Method SW-846, 3rd Edition, Update IV December 1996.
- (4) HACH Handbook of Water Analysis, HACH Chemical Company, 1979.
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TEST RESULTS

Merichem Company
Mary Green
2701 Warrior Road
Tuscaloosa, AL 35404

Project:	007	Lab Number:	1000165
Project Number:		Sample Number:	003
Sample Location:	007	Sample Type:	Stormwater
Sampled By:		Date Received:	1/22/10 13:30
Date/Time Collected:	1/20/10 22:33	Date Reported:	9/2/2010
Client Sample ID:	CP009268		

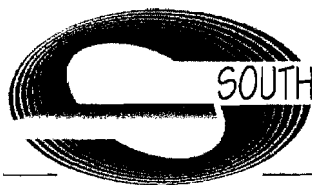
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Total Organic Carbon	2.6		mg/L	1	1/27/10 10:24	5310C (2)	

Report Approved By:

Thomas P. Murray, Ph.D.

~METHOD REFERENCES~

- (1) Methods for Chemical Analysis of Water and Wastes, EPA-600/4-79-020, revised March 1993, August 1993, May 1994.
- (2) Standard Methods for the Examination of Water and Waste Water, 18th Edition, 1992.
- (3) Test Methods for Evaluating Solid Wastes Physical Chemical Method SW-846, 3rd Edition, Update IV December 1996.
- (4) HACH Handbook of Water Analysis, HACH Chemical Company, 1979.
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TEST RESULTS

Merichem Company
Mary Green
2701 Warrior Road
Tuscaloosa, AL 35404

Project:	007	Lab Number:	902027
Project Number:		Sample Number:	001
Sample Location:	007	Sample Type:	Stormwater
Sampled By:		Date Received:	10/8/09 11:15
Date/Time Collected:	10/4/09 20:37	Date Reported:	9/2/2010
Client Sample ID:	CP008753		

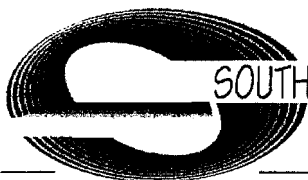
Parameter	Result	Qual	Units	Report Limit	Date	Method	Analyst
Oil and Grease	<5.0		mg/L	5	10/9/09 14:45	1664 (1)	RHC

Report Approved By: _____

Thomas P. Murray, Ph.D.

~METHOD REFERENCES~

- (1) Methods for Chemical Analysis of Water and Wastes, EPA-600/4-79-020, revised March 1993, August 1993, May 1994.
- (2) Standard Methods for the Examination of Water and Waste Water, 18th Edition, 1992.
- (3) Test Methods for Evaluating Solid Wastes Physical Chemical Method SW-846, 3rd Edition, Update IV December 1996.
- (4) HACH Handbook of Water Analysis, HACH Chemical Company, 1979.
- (5) Methods for the Determination of Organic Compounds in Drinking Water, EPA-600/4-88/039, Revised July, 1991, August 1995.



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TEST RESULTS

Merichem Company
Mary Green
2701 Warrior Road
Tuscaloosa, AL 35404

Project:	007	Lab Number:	902027
Project Number:		Sample Number:	002
Sample Location:	007	Sample Type:	Stormwater
Sampled By:		Date Received:	10/8/09 11:15
Date/Time Collected:	10/4/09 20:37	Date Reported:	9/2/2010
Client Sample ID:	CP008753		

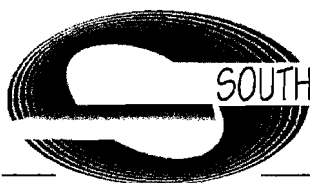
Parameter	Result	Qual	Units	Report Limit	Date	Method	Analyst
Total Organic Carbon	2.3		mg/L	1	10/15/09 10:57	5310C (2)	

Report Approved By:

Thomas P. Murray, Ph.D.

~METHOD REFERENCES~

- (1) Methods for Chemical Analysis of Water and Wastes, EPA-600/4-79-020, revised March 1993, August 1993, May 1994.
- (2) Standard Methods for the Examination of Water and Waste Water, 18th Edition, 1992.
- (3) Test Methods for Evaluating Solid Wastes Physical Chemical Method SW-846, 3rd Edition, Update IV December 1996.
- (4) HACH Handbook of Water Analysis, HACH Chemical Company, 1979.
- (5) Methods for the Determination of Organic Compounds in Drinking Water, EPA-600/4-88/039, Revised July, 1991, August 1995.



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TEST RESULTS

Merichem Company
Mary Green
2701 Warrior Road
Tuscaloosa, AL 35404

Project:	007	Lab Number:	902027
Project Number:		Sample Number:	003
Sample Location:	007	Sample Type:	Stormwater
Sampled By:		Date Received:	10/8/09 11:15
Date/Time Collected:	10/4/09 20:37	Date Reported:	9/2/2010
Client Sample ID:	CP008753		

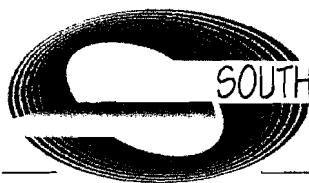
Parameter	Result	Qual	Units	Report Limit	Date	Method	Analyst
Copper, total	<0.0200		mg/L	0.02	10/9/09 11:29	200.7 (1)	MKP
Iron, total	0.121		mg/L	0.02	10/9/09 11:29	200.7 (1)	MKP
Magnesium, total	0.427		mg/L	0.02	10/9/09 11:30	200.7 (1)	MKP
Molybdenum, total	<0.0200		mg/L	0.02	10/9/09 11:30	200.7 (1)	MKP
Zinc, total	0.166		mg/L	0.02	10/9/09 11:31	200.7 (1)	MKP

Report Approved By:

Thomas P. Murray, Ph.D.

~METHOD REFERENCES~

- (1) Methods for Chemical Analysis of Water and Wastes, EPA-600/4-79-020, revised March 1993, August 1993, May 1994.
- (2) Standard Methods for the Examination of Water and Waste Water, 18th Edition, 1992.
- (3) Test Methods for Evaluating Solid Wastes Physical Chemical Method SW-846, 3rd Edition, Update IV December 1996.
- (4) HACH Handbook of Water Analysis, HACH Chemical Company, 1979.
- (5) Methods for the Determination of Organic Compounds in Drinking Water, EPA-600/4-88/039, Revised July, 1991, August 1995.



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TEST RESULTS

Merichem Company
Mary Green
2701 Warrior Road
Tuscaloosa, AL 35404

Project:	006	Lab Number:	1001500
Project Number:		Sample Number:	001
Sample Location:	006	Sample Type:	Stormwater
Sampled By:		Date Received:	7/20/10 11:45
Date/Time Collected:	7/16/10 16:40	Date Reported:	9/2/2010
Client Sample ID:	CP010310		

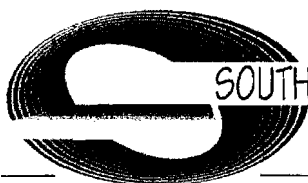
Parameter	Result	Qual	Units	Report Limit	Date	Method	Analyst
Oil and Grease	<5.0		mg/L	5	7/21/10 16:00	1664A (1)	RHC

Report Approved By:

Thomas P. Murray, Ph.D.

~METHOD REFERENCES~

- (1) Methods for Chemical Analysis of Water and Wastes, EPA-600/4-79-020, revised March 1993, August 1993, May 1994.
- (2) Standard Methods for the Examination of Water and Waste Water, 18th Edition, 1992.
- (3) Test Methods for Evaluating Solid Wastes Physical Chemical Method SW-846, 3rd Edition, Update IV December 1996
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TEST RESULTS

Merichem Company
Mary Green
2701 Warrior Road
Tuscaloosa, AL 35404

Project:	006	Lab Number:	1001500
Project Number:		Sample Number:	002
Sample Location:	006	Sample Type:	Stormwater
Sampled By:		Date Received:	7/20/10 11:45
Date/Time Collected:	7/16/10 16:40	Date Reported:	9/2/2010
Client Sample ID:	CP010310		

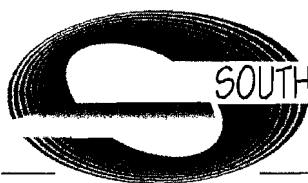
Parameter	Result	Qual	Units	Report Limit	Date	Method	Analyst
Total Organic Carbon	3.3		mg/L	1	7/21/10 15:00	5310C (2)	

Report Approved By:

Thomas P. Murray, Ph.D.

~METHOD REFERENCES~

- (1) Methods for Chemical Analysis of Water and Wastes, EPA-600/4-79-020, revised March 1993, August 1993, May 1994.
- (2) Standard Methods for the Examination of Water and Waste Water, 18th Edition, 1992.
- (3) Test Methods for Evaluating Solid Wastes Physical Chemical Method SW-846, 3rd Edition, Update IV December 1996.
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TEST RESULTS

Merichem Company
Mary Green
2701 Warrior Road
Tuscaloosa, AL 35404

Project:	006	Lab Number:	1001500
Project Number:		Sample Number:	003
Sample Location:	006	Sample Type:	Stormwater
Sampled By:		Date Received:	7/20/10 11:45
Date/Time Collected:	7/16/10 16:40	Date Reported:	9/2/2010
Client Sample ID:	CP010310		

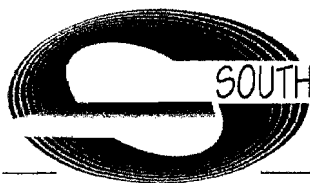
Parameter	Result	Qual	Units	Report Limit	Date	Method	Analyst
Copper, total	<0.0200		mg/L	0.02	7/22/10 11:19	200.7 (1)	MKP
Iron, total	0.363		mg/L	0.02	7/22/10 11:19	200.7 (1)	MKP
Magnesium, total	0.394		mg/L	0.02	7/22/10 11:19	200.7 (1)	MKP

Report Approved By:

Thomas P. Murray, Ph.D.

~METHOD REFERENCES~

- (1) Methods for Chemical Analysis of Water and Wastes, EPA-600/4-79-020, revised March 1993, August 1993, May 1994.
- (2) Standard Methods for the Examination of Water and Waste Water, 18th Edition, 1992.
- (3) Test Methods for Evaluating Solid Wastes Physical Chemical Method SW-846, 3rd Edition, Update IV December 1996.
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TEST RESULTS

Merichem Company
Mary Green
2701 Warrior Road
Tuscaloosa, AL 35404

Project:	006	Lab Number:	1001500
Project Number:		Sample Number:	001
Sample Location:	006	Sample Type:	Stormwater
Sampled By:		Date Received:	7/20/10 11:45
Date/Time Collected:	7/16/10 16:40	Date Reported:	9/2/2010
Client Sample ID:	CP010310		

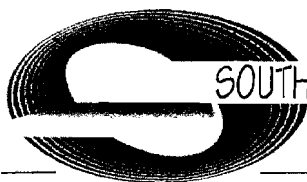
Parameter	Result	Qual	Units	Report Limit	Date	Method	Analyst
Oil and Grease	<5.0		mg/L	5	7/21/10 16:00	1664A (1)	RHC

Report Approved By:

Thomas P. Murray, Ph.D.

~METHOD REFERENCES~

- (1) Methods for Chemical Analysis of Water and Wastes, EPA-600/4-79-020, revised March 1993, August 1993, May 1994.
- (2) Standard Methods for the Examination of Water and Waste Water, 18th Edition, 1992.
- (3) Test Methods for Evaluating Solid Wastes Physical Chemical Method SW-846, 3rd Edition, Update IV December 1996.
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TEST RESULTS

Merichem Company
Mary Green
2701 Warrior Road
Tuscaloosa, AL 35404

Project:	006	Lab Number:	1001500
Project Number:		Sample Number:	002
Sample Location:	006	Sample Type:	Stormwater
Sampled By:		Date Received:	7/20/10 11:45
Date/Time Collected:	7/16/10 16:40	Date Reported:	9/2/2010
Client Sample ID:	CP010310		

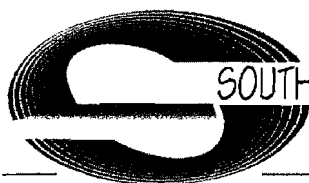
Parameter	Result	Qual	Units	Report Limit	Date	Method	Analyst
Total Organic Carbon	3.3		mg/L	1	7/21/10 15:00	5310C (2)	

Report Approved By:

Thomas P. Murray, Ph.D.

~METHOD REFERENCES~

- (1) Methods for Chemical Analysis of Water and Wastes, EPA-600/4-79-020, revised March 1993, August 1993, May 1994.
- (2) Standard Methods for the Examination of Water and Waste Water, 18th Edition, 1992.
- (3) Test Methods for Evaluating Solid Wastes Physical Chemical Method SW-846, 3rd Edition, Update IV December 1996.
- (4) HACH Handbook of Water Analysis, HACH Chemical Company, 1979.
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TEST RESULTS

Merichem Company
Mary Green
2701 Warrior Road
Tuscaloosa, AL 35404

Project:	006	Lab Number:	1001500
Project Number:		Sample Number:	003
Sample Location:	006	Sample Type:	Stormwater
Sampled By:		Date Received:	7/20/10 11:45
Date/Time Collected:	7/16/10 16:40	Date Reported:	9/2/2010
Client Sample ID:	CP010310		

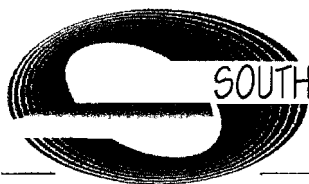
Parameter	Result	Qual	Units	Report Limit	Date	Method	Analyst
Copper, total	<0.0200		mg/L	0.02	7/22/10 11:19	200.7 (1)	MKP
Iron, total	0.363		mg/L	0.02	7/22/10 11:19	200.7 (1)	MKP
Magnesium, total	0.394		mg/L	0.02	7/22/10 11:19	200.7 (1)	MKP

Report Approved By: _____

Thomas P. Murray, Ph.D.

~METHOD REFERENCES~

- (1) Methods for Chemical Analysis of Water and Wastes, EPA-600/4-79-020, revised March 1993, August 1993, May 1994.
- (2) Standard Methods for the Examination of Water and Waste Water, 18th Edition, 1992.
- (3) Test Methods for Evaluating Solid Wastes Physical Chemical Method SW-846, 3rd Edition, Update IV December 1996.
- (4) HACH Handbook of Water Analysis, HACH Chemical Company, 1979.
- (5) Methods for the Determination of Organic Compounds in Drinking Water, EPA-600/4-88/039, Revised July, 1991, August 1995.



SOUTHERN ENVIRONMENTAL TESTING, INC.

P.O. Box 487
3103 Northington Court
Florence, Alabama 35630

(256) 740-5532
Fax (256) 740-5529

TEST RESULTS

Merichem Company
Mary Green
2701 Warrior Road
Tuscaloosa, AL 35404

Project:	006	Lab Number:	1000755
Project Number:		Sample Number:	001
Sample Location:	006 SW	Sample Type:	Stormwater
Sampled By:		Date Received:	4/9/10 11:30
Date/Time Collected:	4/8/10 4:58	Date Reported:	9/2/2010
Client Sample ID:	CP009730		

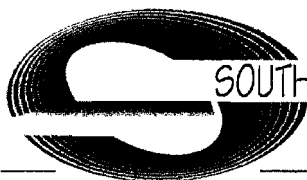
Parameter	Result	Qual	Units	Report Limit	Date	Method	Analyst
Oil and Grease	<5.0		mg/L	5	4/14/10 8:20	1664A (1)	RHC

Report Approved By: _____

Thomas P. Murray, Ph.D.

~METHOD REFERENCES~

- (1) Methods for Chemical Analysis of Water and Wastes, EPA-600/4-79-020, revised March 1993, August 1993, May 1994.
- (2) Standard Methods for the Examination of Water and Waste Water, 18th Edition, 1992.
- (3) Test Methods for Evaluating Solid Wastes Physical Chemical Method SW-846, 3rd Edition, Update IV December 1996.
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TEST RESULTS

Merichem Company
Mary Green
2701 Warrior Road
Tuscaloosa, AL 35404

Project:	006	Lab Number:	1000755
Project Number:		Sample Number:	002
Sample Location:	006 SW	Sample Type:	Stormwater
Sampled By:		Date Received:	4/9/10 11:30
Date/Time Collected:	4/8/10 4:58	Date Reported:	9/2/2010
Client Sample ID:	CP009730		

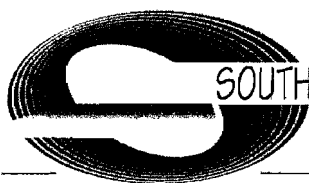
Parameter	Result	Qual	Units	Report Limit	Date	Method	Analyst
Copper, total	0.0222		mg/L	0.02	4/15/10 10:57	200.7 (1)	MKP
Iron, total	0.915		mg/L	0.02	4/15/10 10:57	200.7 (1)	MKP
Magnesium, total	0.256		mg/L	0.02	4/15/10 10:57	200.7 (1)	MKP

Report Approved By: _____

Thomas P. Murray, Ph.D.

~METHOD REFERENCES~

- (1) Methods for Chemical Analysis of Water and Wastes, EPA-600/4-79-020, revised March 1993, August 1993, May 1994.
- (2) Standard Methods for the Examination of Water and Waste Water, 18th Edition, 1992.
- (3) Test Methods for Evaluating Solid Wastes Physical Chemical Method SW-846, 3rd Edition, Update IV December 1996.
- (4) HACH Handbook of Water Analysis, HACH Chemical Company, 1979.
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TEST RESULTS

Merichem Company
Mary Green
2701 Warrior Road
Tuscaloosa, AL 35404

Project:	006	Lab Number:	1000755
Project Number:		Sample Number:	003
Sample Location:	006 SW	Sample Type:	Stormwater
Sampled By:		Date Received:	4/9/10 11:30
Date/Time Collected:	4/8/10 4:58	Date Reported:	9/2/2010
Client Sample ID:	CP009730		

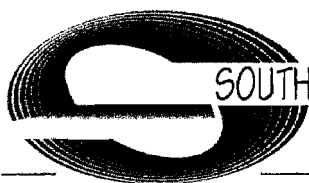
Parameter	Result	Qual	Units	Report Limit	Date	Method	Analyst
Total Organic Carbon	2.3		mg/L	1	4/19/10 14:34	5310C (2)	

Report Approved By:

Thomas P. Murray, Ph.D.

~METHOD REFERENCES~

- (1) Methods for Chemical Analysis of Water and Wastes, EPA-600/4-79-020, revised March 1993, August 1993, May 1994.
- (2) Standard Methods for the Examination of Water and Waste Water, 18th Edition, 1992.
- (3) Test Methods for Evaluating Solid Wastes Physical Chemical Method SW-846, 3rd Edition, Update IV December 1996.
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TEST RESULTS

Merichem Company
Mary Green
2701 Warrior Road
Tuscaloosa, AL 35404

Project:	006	Lab Number:	1000755
Project Number:		Sample Number:	001
Sample Location:	006 SW	Sample Type:	Stormwater
Sampled By:		Date Received:	4/9/10 11:30
Date/Time Collected:	4/8/10 4:58	Date Reported:	9/2/2010
Client Sample ID:	CP009730		

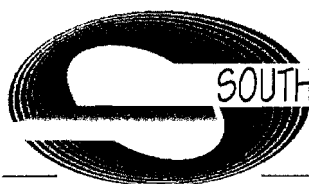
Parameter	Result	Qual	Units	Report Limit	Date	Method	Analyst
Oil and Grease	<5.0		mg/L	5	4/14/10 8:20	1664A (1)	RHC

Report Approved By:

Thomas P. Murray, Ph.D.

~METHOD REFERENCES~

- (1) Methods for Chemical Analysis of Water and Wastes, EPA-600/4-79-020, revised March 1993, August 1993, May 1994.
- (2) Standard Methods for the Examination of Water and Waste Water, 18th Edition, 1992.
- (3) Test Methods for Evaluating Solid Wastes Physical Chemical Method SW-846, 3rd Edition, Update IV December 1996.
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TEST RESULTS

Merichem Company
Mary Green
2701 Warrior Road
Tuscaloosa, AL 35404

Project:	006	Lab Number:	1000755
Project Number:		Sample Number:	002
Sample Location:	006 SW	Sample Type:	Stormwater
Sampled By:		Date Received:	4/9/10 11:30
Date/Time Collected:	4/8/10 4:58	Date Reported:	9/2/2010
Client Sample ID:	CP009730		

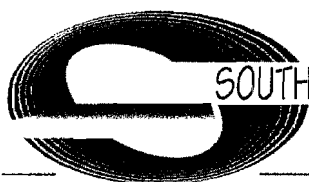
Parameter	Result	Qual	Units	Report Limit	Date	Method	Analyst
Copper, total	0.0222		mg/L	0.02	4/15/10 10:57	200.7 (1)	MKP
Iron, total	0.915		mg/L	0.02	4/15/10 10:57	200.7 (1)	MKP
Magnesium, total	0.256		mg/L	0.02	4/15/10 10:57	200.7 (1)	MKP

Report Approved By: _____

Thomas P. Murray, Ph.D.

~METHOD REFERENCES~

- (1) Methods for Chemical Analysis of Water and Wastes, EPA-600/4-79-020, revised March 1993, August 1993, May 1994.
- (2) Standard Methods for the Examination of Water and Waste Water, 18th Edition, 1992.
- (3) Test Methods for Evaluating Solid Wastes Physical Chemical Method SW-846, 3rd Edition, Update IV December 1996.
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TEST RESULTS

Merichem Company
Mary Green
2701 Warrior Road
Tuscaloosa, AL 35404

Project:	006	Lab Number:	1000755
Project Number:		Sample Number:	003
Sample Location:	006 SW	Sample Type:	Stormwater
Sampled By:		Date Received:	4/9/10 11:30
Date/Time Collected:	4/8/10 4:58	Date Reported:	9/2/2010
Client Sample ID:	CP009730		

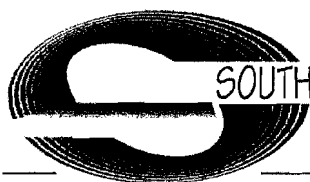
Parameter	Result	Qual	Units	Report Limit	Date	Method	Analyst
Total Organic Carbon	2.3		mg/L	1	4/19/10 14:34	5310C (2)	

Report Approved By:

Thomas P. Murray, Ph.D.

~METHOD REFERENCES~

- (1) Methods for Chemical Analysis of Water and Wastes, EPA-600/4-79-020, revised March 1993, August 1993, May 1994.
- (2) Standard Methods for the Examination of Water and Waste Water, 18th Edition, 1992.
- (3) Test Methods for Evaluating Solid Wastes Physical Chemical Method SW-846, 3rd Edition, Update IV December 1996.
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TEST RESULTS

Merichem Company
Mary Green
2701 Warrior Road
Tuscaloosa, AL 35404

Project:	006	Lab Number:	1000166
Project Number:		Sample Number:	001
Sample Location:	006	Sample Type:	Stormwater
Sampled By:		Date Received:	1/22/10 13:30
Date/Time Collected:	1/20/10 22:43	Date Reported:	9/2/2010
Client Sample ID:	CP009269		

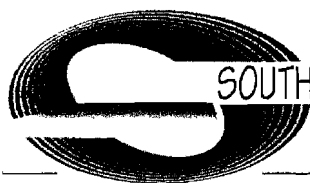
Parameter	Result	Qual	Units	Report Limit	Date	Method	Analyst
Oil and Grease	<5.0		mg/L	5	1/27/10 12:50	1664A (1)	RHC

Report Approved By:

Thomas P. Murray, Ph.D.

~METHOD REFERENCES~

- (1) Methods for Chemical Analysis of Water and Wastes, EPA-600/4-79-020, revised March 1993, August 1993, May 1994.
- (2) Standard Methods for the Examination of Water and Waste Water, 18th Edition, 1992.
- (3) Test Methods for Evaluating Solid Wastes Physical Chemical Method SW-846, 3rd Edition, Update IV December 1996.
- (4) HACH Handbook of Water Analysis, HACH Chemical Company, 1979.
- (5) Methods for the Determination of Organic Compounds in Drinking Water, EPA-600/4-88/039, Revised July, 1991, August 1995.



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TEST RESULTS

Merichem Company
Mary Green
2701 Warrior Road
Tuscaloosa, AL 35404

Project:	006	Lab Number:	1000166
Project Number:		Sample Number:	002
Sample Location:	006	Sample Type:	Stormwater
Sampled By:		Date Received:	1/22/10 13:30
Date/Time Collected:	1/20/10 22:43	Date Reported:	9/2/2010
Client Sample ID:	CP009269		

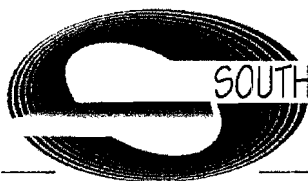
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Copper, total	0.0950		mg/L	0.02	1/26/10 13:00	200.7 (1)	MKP
Iron, total	0.413		mg/L	0.02	1/26/10 13:00	200.7 (1)	MKP
Magnesium, total	0.289		mg/L	0.02	1/26/10 13:00	200.7 (1)	MKP

Report Approved By: _____

Thomas P. Murray, Ph.D.

~METHOD REFERENCES~

- (1) Methods for Chemical Analysis of Water and Wastes, EPA-600/4-79-020, revised March 1993, August 1993, May 1994.
- (2) Standard Methods for the Examination of Water and Waste Water, 18th Edition, 1992.
- (3) Test Methods for Evaluating Solid Wastes Physical Chemical Method SW-846, 3rd Edition, Update IV December 1996.
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TEST RESULTS

Merichem Company
Mary Green
2701 Warrior Road
Tuscaloosa, AL 35404

Project:	006	Lab Number:	1000166
Project Number:		Sample Number:	003
Sample Location:	006	Sample Type:	Stormwater
Sampled By:		Date Received:	1/22/10 13:30
Date/Time Collected:	1/20/10 22:43	Date Reported:	9/2/2010
Client Sample ID:	CP009269		

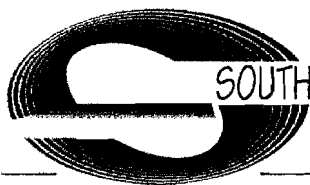
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Total Organic Carbon	2.4		mg/L	1	1/27/10 10:24	5310C (2)	

Report Approved By:

Thomas P. Murray, Ph.D.

~METHOD REFERENCES~

- (1) Methods for Chemical Analysis of Water and Wastes, EPA-600/4-79-020, revised March 1993, August 1993, May 1994.
- (2) Standard Methods for the Examination of Water and Waste Water, 18th Edition, 1992.
- (3) Test Methods for Evaluating Solid Wastes Physical Chemical Method SW-846, 3rd Edition, Update IV December 1996.
- (4) HACH Handbook of Water Analysis, HACH Chemical Company, 1979.
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TEST RESULTS

Merichem Company
Mary Green
2701 Warrior Road
Tuscaloosa, AL 35404

Project:	006	Lab Number:	902026
Project Number:		Sample Number:	001
Sample Location:	006	Sample Type:	Stormwater
Sampled By:		Date Received:	10/8/09 11:15
Date/Time Collected:	10/4/09 20:29	Date Reported:	9/2/2010
Client Sample ID:	CP008752		

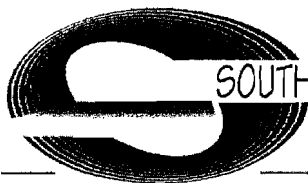
Parameter	Result	Qual	Units	Report Limit	Date	Method	Analyst
Oil and Grease	<5.0		mg/L	5	10/9/09 14:45	1664 (1)	RHC

Report Approved By:

Thomas P. Murray, Ph.D.

~METHOD REFERENCES~

- (1) Methods for Chemical Analysis of Water and Wastes, EPA-600/4-79-020, revised March 1993, August 1993, May 1994.
- (2) Standard Methods for the Examination of Water and Waste Water, 18th Edition, 1992.
- (3) Test Methods for Evaluating Solid Wastes Physical Chemical Method SW-846, 3rd Edition, Update IV December 1996.
- (4) HACH Handbook of Water Analysis, HACH Chemical Company, 1979.
- (5) Methods for the Determination of Organic Compounds in Drinking Water, EPA-600/4-88/039, Revised July, 1991, August 1995.



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TEST RESULTS

Merichem Company
Mary Green
2701 Warrior Road
Tuscaloosa, AL 35404

Project:	006	Lab Number:	902026
Project Number:		Sample Number:	002
Sample Location:	006	Sample Type:	Stormwater
Sampled By:		Date Received:	10/8/09 11:15
Date/Time Collected:	10/4/09 20:29	Date Reported:	9/2/2010
Client Sample ID:	CP008752		

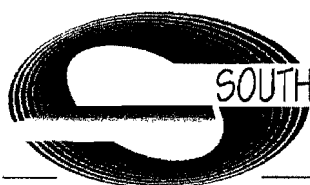
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Total Organic Carbon	3.1		mg/L	1	10/15/09 10:57	5310C (2)	

Report Approved By:

Thomas P. Murray, Ph.D.

~METHOD REFERENCES~

- (1) Methods for Chemical Analysis of Water and Wastes, EPA-600/4-79-020, revised March 1993, August 1993, May 1994.
- (2) Standard Methods for the Examination of Water and Waste Water, 18th Edition, 1992.
- (3) Test Methods for Evaluating Solid Wastes Physical Chemical Method SW-846, 3rd Edition, Update IV December 1996.
- (4) HACH Handbook of Water Analysis, HACH Chemical Company, 1979.
- (5) Methods for the Determination of Organic Compounds in Drinking Water, EPA-600/4-88/039, Revised July, 1991, August 1995.



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TEST RESULTS

Merichem Company
Mary Green
2701 Warrior Road
Tuscaloosa, AL 35404

Project:	006	Lab Number:	902026
Project Number:		Sample Number:	003
Sample Location:	006	Sample Type:	Stormwater
Sampled By:		Date Received:	10/8/09 11:15
Date/Time Collected:	10/4/09 20:29	Date Reported:	9/2/2010
Client Sample ID:	CP008752		

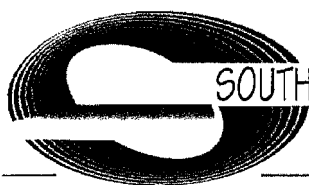
Parameter	Result	Qual	Units	Report Limit	Date	Method	Analyst
Copper, total	0.0361		mg/L	0.02	10/9/09 11:27	200.7 (1)	MKP
Iron, total	0.127		mg/L	0.02	10/9/09 11:27	200.7 (1)	MKP
Magnesium, total	0.245		mg/L	0.02	10/9/09 11:28	200.7 (1)	MKP

Report Approved By:

Thomas P. Murray, Ph.D.

~METHOD REFERENCES~

- (1) Methods for Chemical Analysis of Water and Wastes, EPA-600/4-79-020, revised March 1993, August 1993, May 1994.
- (2) Standard Methods for the Examination of Water and Waste Water, 18th Edition, 1992.
- (3) Test Methods for Evaluating Solid Wastes Physical Chemical Method SW-846, 3rd Edition, Update IV December 1996.
- (4) HACH Handbook of Water Analysis, HACH Chemical Company, 1979.
- (5) Methods for the Determination of Organic Compounds in Drinking Water, EPA-600/4-88/039, Revised July, 1991, August 1995.



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TEST RESULTS

Merichem Company
Mary Green
2701 Warrior Road
Tuscaloosa, AL 35404

Project:	006	Lab Number:	901390
Project Number:		Sample Number:	001
Sample Location:	006	Sample Type:	Stormwater
Sampled By:		Date Received:	7/16/09 10:45
Date/Time Collected:	7/6/09 10:19	Date Reported:	9/2/2010
Client Sample ID:	CP008282		

Parameter	Result	Qual	Units	Report Limit	Date	Method	Analyst
Oil and Grease	<5.0		mg/L	5	7/20/09 9:40	1664 (1)	RHC

Report Approved By:

Thomas P. Murray, Ph.D.

~METHOD REFERENCES~

- (1) Methods for Chemical Analysis of Water and Wastes, EPA-600/4-79-020, revised March 1993, August 1993, May 1994.
- (2) Standard Methods for the Examination of Water and Waste Water, 18th Edition, 1992.
- (3) Test Methods for Evaluating Solid Wastes Physical Chemical Method SW-846, 3rd Edition, Update IV December 1996.
- (4) HACH Handbook of Water Analysis, HACH Chemical Company, 1979.
- (5) Methods for the Determination of Organic Compounds in Drinking Water, EPA-600/4-88/039, Revised July, 1991, August 1995.

ATTACHMENT A
ADDENDUM NO. 1 FOR COST PROPOSAL NO. 37
NEUGENT'S ECHO SERVICE STATION
19460 U.S. HIGHWAY 43 NORTH
RUSSELLVILLE, ALABAMA

Personnel Costs Requested:

<u>Task</u>	<u>Personnel</u>	<u>Cost /Unit</u>	<u>Unit</u>	<u>Dollars</u>
MEME Event	Technician	\$55.00 /hour	8	\$440.00
Travel	Technician	\$55.00 /hour	5	\$275.00

Professional Services: **\$715.00**

Field Activities Costs Requested:

<u>Task</u>	<u>Subcontractor</u>	<u>Cost /Unit</u>	<u>Unit</u>	<u>Dollars</u>
8-hr MEME Event	ESP of Vermont	\$2,850.00 /event	1	\$2,850.00

Subtotal Field Activities: **\$2,850.00**
5% markup **\$142.50**

Field Activities: **\$2,992.50**

Other Direct Costs:

<u>Per Diem</u>				
MEME Event	Technician	\$11.25 /day	1	\$11.25

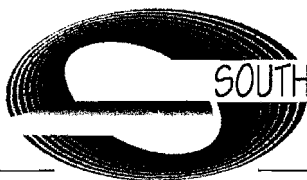
Subtotal Per Diem: **\$11.25**

<u>Water Disposal</u>				
PCW Disposal	ESP of Vermont	\$0.20 /gallon	minimum charge	\$150.00

Subtotal Analytical: **\$150.00**
5% markup **\$7.50**

Other Direct Costs: **\$168.75**

Total Costs: **\$3,876.25**



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TEST RESULTS

Merichem Company
Mary Green
2701 Warrior Road
Tuscaloosa, AL 35404

Project:	003	Lab Number:	1000758
Project Number:		Sample Number:	001
Sample Location:	003 NAP	Sample Type:	Stormwater
Sampled By:		Date Received:	4/9/10 11:30
Date/Time Collected:	4/8/10 5:01	Date Reported:	9/2/2010
Client Sample ID:	CP009736		

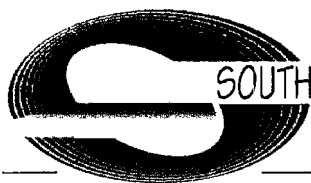
Parameter	Result	Qual	Units	Report Limit	Date	Method	Analyst
Oil and Grease	<5.0		mg/L	5	4/16/10 8:15	1664A (1)	RHC

Report Approved By:

Thomas P. Murray, Ph.D.

~METHOD REFERENCES~

- (1) Methods for Chemical Analysis of Water and Wastes, EPA-600/4-79-020, revised March 1993, August 1993, May 1994.
- (2) Standard Methods for the Examination of Water and Waste Water, 18th Edition, 1992.
- (3) Test Methods for Evaluating Solid Wastes Physical Chemical Method SW-846, 3rd Edition, Update IV December 1996.
- (4) HACH Handbook of Water Analysis, HACH Chemical Company, 1979.
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TEST RESULTS

Merichem Company
Mary Green
2701 Warrior Road
Tuscaloosa, AL 35404

Project:	003	Lab Number:	1000758
Project Number:		Sample Number:	002
Sample Location:	003 NAP	Sample Type:	Stormwater
Sampled By:		Date Received:	4/9/10 11:30
Date/Time Collected:	4/8/10 5:01	Date Reported:	9/2/2010
Client Sample ID:	CP009736		

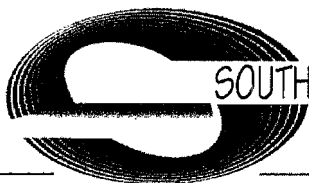
Parameter	Result	Qual	Units	Report Limit	Date	Method	Analyst
Total Organic Carbon	7.5		mg/L	1	4/19/10 14:34	5310C (2)	

Report Approved By:

Thomas P. Murray, Ph.D.

~METHOD REFERENCES~

- (1) Methods for Chemical Analysis of Water and Wastes, EPA-600/4-79-020, revised March 1993, August 1993, May 1994.
- (2) Standard Methods for the Examination of Water and Waste Water, 18th Edition, 1992.
- (3) Test Methods for Evaluating Solid Wastes Physical Chemical Method SW-846, 3rd Edition, Update IV December 1996.
- (4) HACH Handbook of Water Analysis, HACH Chemical Company, 1979.
- (5) Methods for the Determination of Organic Compounds in Drinking Water, EPA-600/4-88/039, Revised July, 1991, August 1995.



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TEST RESULTS

Merichem Company
Mary Green
2701 Warrior Road
Tuscaloosa, AL 35404

Project:	003	Lab Number:	1001498
Project Number:		Sample Number:	001
Sample Location:	003 NAP	Sample Type:	Wastewater
Sampled By:		Date Received:	7/20/10 11:45
Date/Time Collected:	7/10/10 15:28	Date Reported:	9/2/2010
Client Sample ID:	CP010284		

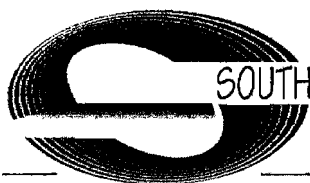
Parameter	Result	Qual	Units	Report Limit	Date	Method	Analyst
Oil and Grease	<5.0		mg/L	5	7/21/10 16:00	1664A (1)	RHC

Report Approved By: _____

Thomas P. Murray, Ph.D.

~METHOD REFERENCES~

- (1) Methods for Chemical Analysis of Water and Wastes, EPA-600/4-79-020, revised March 1993, August 1993, May 1994.
- (2) Standard Methods for the Examination of Water and Waste Water, 18th Edition, 1992.
- (3) Test Methods for Evaluating Solid Wastes Physical Chemical Method SW-846, 3rd Edition, Update IV December 1996.
- (4) HACH Handbook of Water Analysis, HACH Chemical Company, 1979.
- (5) Methods for the Determination of Organic Compounds in Drinking Water, EPA-600/4-88/039, Revised July, 1991, August 1995.



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TEST RESULTS

Merichem Company
Mary Green
2701 Warrior Road
Tuscaloosa, AL 35404

Project:	003	Lab Number:	1001498
Project Number:		Sample Number:	002
Sample Location:	003 NAP	Sample Type:	Wastewater
Sampled By:		Date Received:	7/20/10 11:45
Date/Time Collected:	7/10/10 15:28	Date Reported:	9/2/2010
Client Sample ID:	CP010284		

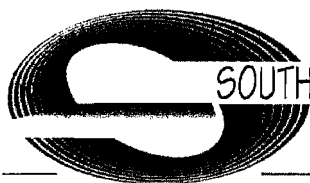
Parameter	Result	Qual	Units	Report Limit	Date	Method	Analyst
Total Organic Carbon	10.9		mg/L	1	7/21/10 15:00	5310C (2)	

Report Approved By:

Thomas P. Murray, Ph.D.

~METHOD REFERENCES~

- (1) Methods for Chemical Analysis of Water and Wastes, EPA-600/4-79-020, revised March 1993, August 1993, May 1994.
- (2) Standard Methods for the Examination of Water and Waste Water, 18th Edition, 1992.
- (3) Test Methods for Evaluating Solid Wastes Physical Chemical Method SW-846, 3rd Edition, Update IV December 1996.
- (4) HACH Handbook of Water Analysis, HACH Chemical Company, 1979.
- (5) Methods for the Determination of Organic Compounds in Drinking Water, EPA-600/4-88/039, Revised July, 1991, August 1995.



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TEST RESULTS

Merichem Company
Mary Green
2701 Warrior Road
Tuscaloosa, AL 35404

Project:	003	Lab Number:	1000037
Project Number:		Sample Number:	001
Sample Location:	003	Sample Type:	Stormwater
Sampled By:		Date Received:	1/6/10 11:30
Date/Time Collected:	1/3/10 15:27	Date Reported:	9/2/2010
Client Sample ID:	CP009169		

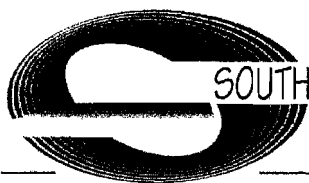
Parameter	Result	Qual	Units	Report Limit	Date	Method	Analyst
Oil and Grease	<5.0		mg/L	5	1/11/10 15:35	1664 (1)	RHC

Report Approved By:

Thomas P. Murray, Ph.D.

~METHOD REFERENCES~

- (1) Methods for Chemical Analysis of Water and Wastes, EPA-600/4-79-020, revised March 1993, August 1993, May 1994.
- (2) Standard Methods for the Examination of Water and Waste Water, 18th Edition, 1992.
- (3) Test Methods for Evaluating Solid Wastes Physical Chemical Method SW-846, 3rd Edition, Update IV December 1996.
- (4) HACH Handbook of Water Analysis, HACH Chemical Company, 1979.
- (5) Methods for the Determination of Organic Compounds in Drinking Water, EPA-600/4-88/039, Revised July, 1991, August 1995.



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TEST RESULTS

Merichem Company
Mary Green
2701 Warrior Road
Tuscaloosa, AL 35404

Project:	003	Lab Number:	1000037
Project Number:		Sample Number:	002
Sample Location:	003	Sample Type:	Stormwater
Sampled By:		Date Received:	1/6/10 11:30
Date/Time Collected:	1/3/10 15:27	Date Reported:	9/2/2010
Client Sample ID:	CP009169		

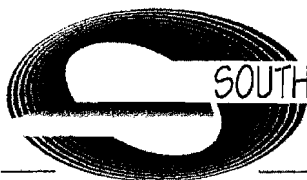
Parameter	Result	Qual	Units	Report Limit	Date	Method	Analyst
Total Organic Carbon	5.2		mg/L	1	1/15/10 11:00	5310C (2)	

Report Approved By: _____

Thomas P. Murray, Ph.D.

~METHOD REFERENCES~

- (1) Methods for Chemical Analysis of Water and Wastes, EPA-600/4-79-020, revised March 1993, August 1993, May 1994.
- (2) Standard Methods for the Examination of Water and Waste Water, 18th Edition, 1992.
- (3) Test Methods for Evaluating Solid Wastes Physical Chemical Method SW-846, 3rd Edition, Update IV December 1996.
- (4) HACH Handbook of Water Analysis, HACH Chemical Company, 1979.
- (5) Methods for the Determination of Organic Compounds in Drinking Water, EPA-600/4-88/039, Revised July, 1991, August 1995.



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TEST RESULTS

Merichem Company
Mary Green
2701 Warrior Road
Tuscaloosa, AL 35404

Project:	003	Lab Number:	901391
Project Number:		Sample Number:	001
Sample Location:	003	Sample Type:	Stormwater
Sampled By:		Date Received:	7/16/09 10:45
Date/Time Collected:	7/13/09 9:19	Date Reported:	9/2/2010
Client Sample ID:	CP008330		

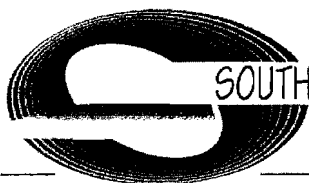
Parameter	Result	Qual	Units	Report Limit	Date	Method	Analyst
Oil and Grease	<5.0		mg/L	5	7/20/09 9:40	1664 (1)	RHC

Report Approved By:

Thomas P. Murray, Ph.D.

~METHOD REFERENCES~

- (1) Methods for Chemical Analysis of Water and Wastes, EPA-600/4-79-020, revised March 1993, August 1993, May 1994.
- (2) Standard Methods for the Examination of Water and Waste Water, 18th Edition, 1992.
- (3) Test Methods for Evaluating Solid Wastes Physical Chemical Method SW-846, 3rd Edition, Update IV December 1996.
- (4) HACH Handbook of Water Analysis, HACH Chemical Company, 1979.
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TEST RESULTS

Merichem Company
Mary Green
2701 Warrior Road
Tuscaloosa, AL 35404

Project:	003	Lab Number:	901391
Project Number:		Sample Number:	002
Sample Location:	003	Sample Type:	Stormwater
Sampled By:		Date Received:	7/16/09 10:45
Date/Time Collected:	7/13/09 9:19	Date Reported:	9/2/2010
Client Sample ID:	CP008330		

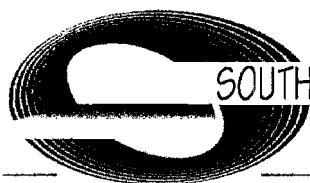
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Total Organic Carbon	11.0		mg/L	1	7/23/09 15:17	5310C (2)	

Report Approved By: _____

Thomas P. Murray, Ph.D.

~METHOD REFERENCES~

- (1) Methods for Chemical Analysis of Water and Wastes, EPA-600/4-79-020, revised March 1993, August 1993, May 1994.
- (2) Standard Methods for the Examination of Water and Waste Water, 18th Edition, 1992.
- (3) Test Methods for Evaluating Solid Wastes Physical Chemical Method SW-846, 3rd Edition, Update IV December 1996.
- (4) HACH Handbook of Water Analysis, HACH Chemical Company, 1979.
- (5) Methods for the Determination of Organic Compounds in Drinking Water, EPA-600/4-88/039, Revised July, 1991, August 1995.



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TEST RESULTS

Merichem Company
Mary Green
2701 Warrior Road
Tuscaloosa, AL 35404

Project:	003 Storm	Lab Number:	902081
Project Number:		Sample Number:	001
Sample Location:	003 Storm	Sample Type:	Stormwater
Sampled By:		Date Received:	10/15/09 11:45
Date/Time Collected:	10/8/09 12:24	Date Reported:	9/2/2010
Client Sample ID:	CP008779		

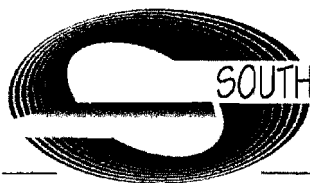
Parameter	Result	Qual	Units	Report Limit	Date	Method	Analyst
Oil and Grease	<5.0		mg/L	5	10/21/09 14:00	1664 (1)	RHC

Report Approved By:

Thomas P. Murray, Ph.D.

~METHOD REFERENCES~

- (1) Methods for Chemical Analysis of Water and Wastes, EPA-600/4-79-020, revised March 1993, August 1993, May 1994.
- (2) Standard Methods for the Examination of Water and Waste Water, 18th Edition, 1992.
- (3) Test Methods for Evaluating Solid Wastes Physical Chemical Method SW-846, 3rd Edition, Update IV December 1996.
- (4) HACH Handbook of Water Analysis, HACH Chemical Company, 1979.
- (5) Methods for the Determination of Organic Compounds in Drinking Water, EPA-600/4-88/039, Revised July, 1991, August 1995.



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TEST RESULTS

Merichem Company
Mary Green
2701 Warrior Road
Tuscaloosa, AL 35404

Project:	003 Storm	Lab Number:	902081
Project Number:		Sample Number:	002
Sample Location:	003 Storm	Sample Type:	Stormwater
Sampled By:		Date Received:	10/15/09 11:45
Date/Time Collected:	10/8/09 12:24	Date Reported:	9/2/2010
Client Sample ID:	CP008779		

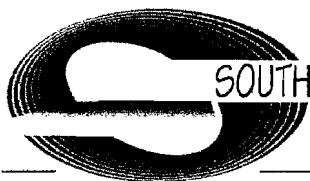
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Total Organic Carbon	5.6		mg/L	1	10/22/09 14:50	5310C (2)	

Report Approved By:

Thomas P. Murray, Ph.D.

~METHOD REFERENCES~

- (1) Methods for Chemical Analysis of Water and Wastes, EPA-600/4-79-020, revised March 1993, August 1993, May 1994.
- (2) Standard Methods for the Examination of Water and Waste Water, 18th Edition, 1992.
- (3) Test Methods for Evaluating Solid Wastes Physical Chemical Method SW-846, 3rd Edition, Update IV December 1996.
- (4) HACH Handbook of Water Analysis, HACH Chemical Company, 1979.
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TEST RESULTS

Merichem Company
Mary Green
2701 Warrior Road
Tuscaloosa, AL 35404

Project:	003 nap	Lab Number:	1000107
Project Number:		Sample Number:	001
Sample Location:	003 nap	Sample Type:	Stormwater
Sampled By:		Date Received:	1/19/10 11:30
Date/Time Collected:	1/18/10 8:00	Date Reported:	9/2/2010
Client Sample ID:	CP009247		

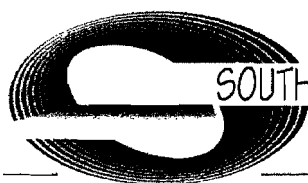
Parameter	Result	Qual	Units	Report Limit	Date	Method	Analyst
Oil and Grease	<5.0		mg/L	5	1/21/10 15:00	1664 (1)	RHC

Report Approved By: _____

Thomas P. Murray, Ph.D.

~METHOD REFERENCES~

- (1) Methods for Chemical Analysis of Water and Wastes, EPA-600/4-79-020, revised March 1993, August 1993, May 1994.
- (2) Standard Methods for the Examination of Water and Waste Water, 18th Edition, 1992.
- (3) Test Methods for Evaluating Solid Wastes Physical Chemical Method SW-846, 3rd Edition, Update IV December 1996.
- (4) HACH Handbook of Water Analysis, HACH Chemical Company, 1979.
- (5) Methods for the Determination of Organic Compounds in Drinking Water, EPA-600/4-88/039, Revised July, 1991, August 1995.



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TEST RESULTS

Merichem Company
Mary Green
2701 Warrior Road
Tuscaloosa, AL 35404

Project:	003 nap	Lab Number:	1000107
Project Number:		Sample Number:	002
Sample Location:	003 nap	Sample Type:	Stormwater
Sampled By:		Date Received:	1/19/10 11:30
Date/Time Collected:	1/18/10 8:00	Date Reported:	9/2/2010
Client Sample ID:	CP009247		

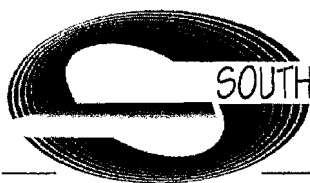
Parameter	Result	Qual	Units	Report Limit	Date	Method	Analyst
Total Organic Carbon	7.0		mg/L	1	1/21/10 12:38	5310C (2)	

Report Approved By:

Thomas P. Murray, Ph.D.

~METHOD REFERENCES~

- (1) Methods for Chemical Analysis of Water and Wastes, EPA-600/4-79-020, revised March 1993, August 1993, May 1994.
- (2) Standard Methods for the Examination of Water and Waste Water, 18th Edition, 1992.
- (3) Test Methods for Evaluating Solid Wastes Physical Chemical Method SW-846, 3rd Edition, Update IV December 1996.
- (4) HACH Handbook of Water Analysis, HACH Chemical Company, 1979.
- (5) Methods for the Determination of Organic Compounds in Drinking Water, EPA-600/4-88/039, Revised July, 1991, August 1995.



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TEST RESULTS

Merichem Company
Mary Green
2701 Warrior Road
Tuscaloosa, AL 35404

Project:	003 nap	Lab Number:	1000107
Project Number:		Sample Number:	001
Sample Location:	003 nap	Sample Type:	Stormwater
Sampled By:		Date Received:	1/19/10 11:30
Date/Time Collected:	1/18/10 8:00	Date Reported:	9/2/2010
Client Sample ID:	CP009247		

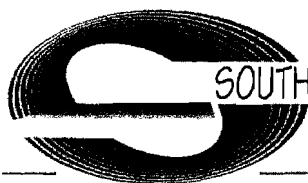
Parameter	Result	Qual	Units	Report Limit	Date	Method	Analyst
Oil and Grease	<5.0		mg/L	5	1/21/10 15:00	1664 (1)	RHC

Report Approved By:

Thomas P. Murray, Ph.D.

~METHOD REFERENCES~

- (1) Methods for Chemical Analysis of Water and Wastes, EPA-600/4-79-020, revised March 1993, August 1993, May 1994.
- (2) Standard Methods for the Examination of Water and Waste Water, 18th Edition, 1992.
- (3) Test Methods for Evaluating Solid Wastes Physical Chemical Method SW-846, 3rd Edition, Update IV December 1996.
- (4) HACH Handbook of Water Analysis, HACH Chemical Company, 1979.
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TEST RESULTS

Merichem Company
Mary Green
2701 Warrior Road
Tuscaloosa, AL 35404

Project: 003 nap

Project Number:

Sample Location: 003 nap

Sampled By:

Date/Time Collected: 1/18/10 8:00

Client Sample ID: CP009247

Lab Number: 1000107

Sample Number: 002

Sample Type: Stormwater

Date Received: 1/19/10 11:30

Date Reported: 9/2/2010

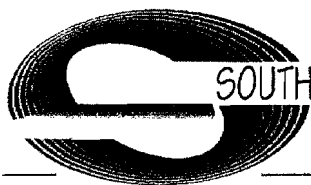
Parameter	Result	Qual	Units	Report Limit	Date	Method	Analyst
Total Organic Carbon	7.0		mg/L	1	1/21/10 12:38	5310C (2)	

Report Approved By:

Thomas P. Murray, Ph.D.

~METHOD REFERENCES~

- (1) Methods for Chemical Analysis of Water and Wastes, EPA-600/4-79-020, revised March 1993, August 1993, May 1994.
- (2) Standard Methods for the Examination of Water and Waste Water, 18th Edition, 1992.
- (3) Test Methods for Evaluating Solid Wastes Physical Chemical Method SW-846, 3rd Edition, Update IV December 1996.
- (4) HACH Handbook of Water Analysis, HACH Chemical Company, 1979.
- (5) Methods for the Determination of Organic Compounds in Drinking Water, EPA-600/4-88/039, Revised July, 1991, August 1995.



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TEST RESULTS

Merichem Company
Mary Green
2701 Warrior Road
Tuscaloosa, AL 35404

Project:	003 nap	Lab Number:	1000107
Project Number:		Sample Number:	001
Sample Location:	003 nap	Sample Type:	Stormwater
Sampled By:		Date Received:	1/19/10 11:30
Date/Time Collected:	1/18/10 8:00	Date Reported:	9/2/2010
Client Sample ID:	CP009247		

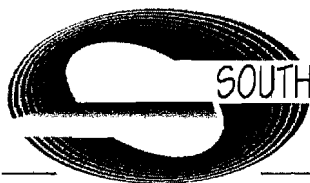
Parameter	Result	Qual	Units	Report Limit	Date	Method	Analyst
Oil and Grease	<5.0		mg/L	5	1/21/10 15:00	1664 (1)	RHC

Report Approved By: _____

Thomas P. Murray, Ph.D.

~METHOD REFERENCES~

- (1) Methods for Chemical Analysis of Water and Wastes, EPA-600/4-79-020, revised March 1993, August 1993, May 1994.
- (2) Standard Methods for the Examination of Water and Waste Water, 18th Edition, 1992.
- (3) Test Methods for Evaluating Solid Wastes Physical Chemical Method SW-846, 3rd Edition, Update IV December 1996.
- (4) HACH Handbook of Water Analysis, HACH Chemical Company, 1979.
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TEST RESULTS

Merichem Company
Mary Green
2701 Warrior Road
Tuscaloosa, AL 35404

Project:	003 nap	Lab Number:	1000107
Project Number:		Sample Number:	002
Sample Location:	003 nap	Sample Type:	Stormwater
Sampled By:		Date Received:	1/19/10 11:30
Date/Time Collected:	1/18/10 8:00	Date Reported:	9/2/2010
Client Sample ID:	CP009247		

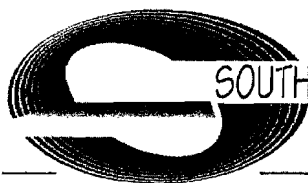
Parameter	Result	Qual	Units	Report Limit	Date	Method	Analyst
Total Organic Carbon	7.0		mg/L	1	1/21/10 12:38	5310C (2)	

Report Approved By: _____

Thomas P. Murray, Ph.D.

~METHOD REFERENCES~

- (1) Methods for Chemical Analysis of Water and Wastes, EPA-600/4-79-020, revised March 1993, August 1993, May 1994.
- (2) Standard Methods for the Examination of Water and Waste Water, 18th Edition, 1992.
- (3) Test Methods for Evaluating Solid Wastes Physical Chemical Method SW-846, 3rd Edition, Update IV December 1996.
- (4) HACH Handbook of Water Analysis, HACH Chemical Company, 1979.
- (5) Methods for the Determination of Organic Compounds in Drinking Water, EPA-600/4-88/039, Revised July, 1991, August 1995



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TEST RESULTS

Merichem Company
Mary Green
2701 Warrior Road
Tuscaloosa, AL 35404

Project:	002	Lab Number:	1000245
Project Number:		Sample Number:	001
Sample Location:	002	Sample Type:	Wastewater
Sampled By:	Client	Date Received:	2/2/10 12:00
Date/Time Collected:	1/26/10 13:00	Date Reported:	9/2/2010
Client Sample ID:	CP009326		

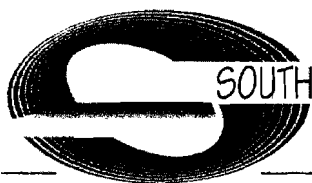
Parameter	Result	Qual	Units	Report Limit	Date	Method	Analyst
Oil and Grease	35.4		mg/L	5	2/4/10 9:30	1664A (1)	RHC

Report Approved By:

Thomas P. Murray, Ph.D.

~METHOD REFERENCES~

- (1) Methods for Chemical Analysis of Water and Wastes, EPA-600/4-79-020, revised March 1993, August 1993, May 1994.
- (2) Standard Methods for the Examination of Water and Waste Water, 18th Edition, 1992.
- (3) Test Methods for Evaluating Solid Wastes Physical Chemical Method SW-846, 3rd Edition, Update IV December 1996.
- (4) HACH Handbook of Water Analysis, HACH Chemical Company, 1979.
- (5) Methods for the Determination of Organic Compounds in Drinking Water, EPA-600/4-88/039, Revised July, 1991, August 1995.



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TEST RESULTS

Merichem Company
Mary Green
2701 Warrior Road
Tuscaloosa, AL 35404

Project:	002	Lab Number:	1000245
Project Number:		Sample Number:	002
Sample Location:	002	Sample Type:	Wastewater
Sampled By:	Client	Date Received:	2/2/10 12:00
Date/Time Collected:	1/26/10 13:00	Date Reported:	9/2/2010
Client Sample ID:	CP009326		

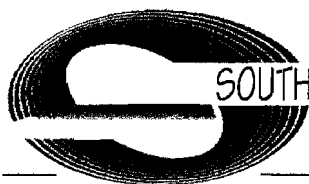
Parameter	Result	Qual	Units	Report Limit	Date	Method	Analyst
Ammonia-N	85.7		mg/L	10	2/4/10 16:00	350.3 (1)	MEF

Report Approved By:

Thomas P. Murray, Ph.D.

~METHOD REFERENCES~

- (1) Methods for Chemical Analysis of Water and Wastes, EPA-600/4-79-020, revised March 1993, August 1993, May 1994.
- (2) Standard Methods for the Examination of Water and Waste Water, 18th Edition, 1992.
- (3) Test Methods for Evaluating Solid Wastes Physical Chemical Method SW-846, 3rd Edition, Update IV December 1996.
- (4) HACH Handbook of Water Analysis, HACH Chemical Company, 1979.
- (5) Methods for the Determination of Organic Compounds in Drinking Water, EPA-600/4-88/039, Revised July, 1991, August 1995.



SOUTHERN ENVIRONMENTAL TESTING, INC.

P.O. Box 487
3103 Northington Court
Florence, Alabama 35630

(256) 740-5532
Fax (256) 740-5529

TEST RESULTS

Merichem Company
Mary Green
2701 Warrior Road
Tuscaloosa, AL 35404

Project:	003	Lab Number:	902081
Project Number:		Sample Number:	001
Sample Location:	003 Storm	Sample Type:	Stormwater
Sampled By:		Date Received:	10/15/09 11:45
Date/Time Collected:	10/8/09 12:24	Date Reported:	9/3/2010
Client Sample ID:	CP008779		

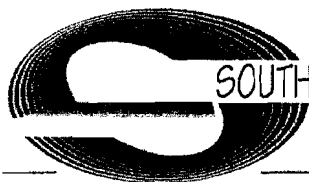
Parameter	Result	Qual	Units	Report Limit	Date	Method	Analyst
Oil and Grease	<5.0		mg/L	5	10/21/09 14:00	1664 (1)	RHC

Report Approved By:

Thomas P. Murray, Ph.D.

~METHOD REFERENCES~

- (1) Methods for Chemical Analysis of Water and Wastes, EPA-600/4-79-020, revised March 1993, August 1993, May 1994.
- (2) Standard Methods for the Examination of Water and Waste Water, 18th Edition, 1992.
- (3) Test Methods for Evaluating Solid Wastes Physical Chemical Method SW-846, 3rd Edition, Update IV December 1996.
- (4) HACH Handbook of Water Analysis, HACH Chemical Company, 1979.
- (5) Methods for the Determination of Organic Compounds in Drinking Water, EPA-600/4-88/039, Revised July, 1991, August 1995.



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TEST RESULTS

Merichem Company
Mary Green
2701 Warrior Road
Tuscaloosa, AL 35404

Project:	003	Lab Number:	902081
Project Number:		Sample Number:	002
Sample Location:	003 Storm	Sample Type:	Stormwater
Sampled By:		Date Received:	10/15/09 11:45
Date/Time Collected:	10/8/09 12:24	Date Reported:	9/3/2010
Client Sample ID:	CP008779		

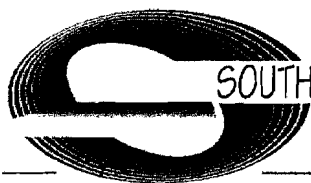
Parameter	Result	Qual	Units	Report Limit	Date	Method	Analyst
Total Organic Carbon	5.6		mg/L	1	10/22/09 14:50	5310C (2)	

Report Approved By:

Thomas P. Murray, Ph.D.

~METHOD REFERENCES~

- (1) Methods for Chemical Analysis of Water and Wastes, EPA-600/4-79-020, revised March 1993, August 1993, May 1994.
- (2) Standard Methods for the Examination of Water and Waste Water, 18th Edition, 1992.
- (3) Test Methods for Evaluating Solid Wastes Physical Chemical Method SW-846, 3rd Edition, Update IV December 1996.
- (4) HACH Handbook of Water Analysis, HACH Chemical Company, 1979.
- (5) Methods for the Determination of Organic Compounds in Drinking Water, EPA-600/4-88/039, Revised July, 1991, August 1995.



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TEST RESULTS

Merichem Company
Mary Green
2701 Warrior Road
Tuscaloosa, AL 35404

Project:	003	Lab Number:	1000107
Project Number:		Sample Number:	001
Sample Location:	003 nap	Sample Type:	Stormwater
Sampled By:		Date Received:	1/19/10 11:30
Date/Time Collected:	1/18/10 8:00	Date Reported:	9/3/2010
Client Sample ID:	CP009247		

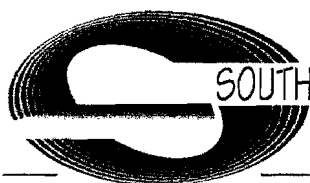
Parameter	Result	Qual	Units	Report Limit	Date	Method	Analyst
Oil and Grease	<5.0		mg/L	5	1/21/10 15:00	1664 (1)	RHC

Report Approved By: _____

Thomas P. Murray, Ph.D.

~METHOD REFERENCES~

- (1) Methods for Chemical Analysis of Water and Wastes, EPA-600/4-79-020, revised March 1993, August 1993, May 1994.
- (2) Standard Methods for the Examination of Water and Waste Water, 18th Edition, 1992.
- (3) Test Methods for Evaluating Solid Wastes Physical Chemical Method SW-846, 3rd Edition, Update IV December 1996.
- (4) HACH Handbook of Water Analysis, HACH Chemical Company, 1979.
- (5) Methods for the Determination of Organic Compounds in Drinking Water, EPA-600/4-88/039, Revised July, 1991, August 1995.



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TEST RESULTS

Merichem Company
Mary Green
2701 Warrior Road
Tuscaloosa, AL 35404

Project:	003	Lab Number:	1000107
Project Number:		Sample Number:	002
Sample Location:	003 nap	Sample Type:	Stormwater
Sampled By:		Date Received:	1/19/10 11:30
Date/Time Collected:	1/18/10 8:00	Date Reported:	9/3/2010
Client Sample ID:	CP009247		

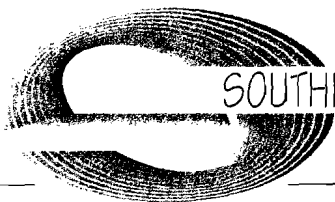
Parameter	Result	Qual	Units	Report Limit	Date	Method	Analyst
Total Organic Carbon	7.0		mg/L	1	1/21/10 12:38	5310C (2)	

Report Approved By: _____

Thomas P. Murray, Ph.D.

~METHOD REFERENCES~

- (1) Methods for Chemical Analysis of Water and Wastes, EPA-600/4-79-020, revised March 1993, August 1993, May 1994.
- (2) Standard Methods for the Examination of Water and Waste Water, 18th Edition, 1992.
- (3) Test Methods for Evaluating Solid Wastes Physical Chemical Method SW-846, 3rd Edition, Update IV December 1996.
- (4) HACH Handbook of Water Analysis, HACH Chemical Company, 1979.
- (5) Methods for the Determination of Organic Compounds in Drinking Water, EPA-600/4-88/039, Revised July, 1991, August 1995.



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TEST RESULTS

Merichem Chemicals & Refinery
Mary Green
2701 Warrior Road
Tuscaloosa, AL 35404

Project:	Permit Renewal	Lab Number:	802032
Project Number:		Sample Number:	-01
Sample Location:	DSN001	Sample Type:	Wastewater
Sampled By:		Date Received:	9/23/08 10:20
Date/Time Collected:	9/20/08 14:30	Date Reported:	10/21/2008
Client Sample ID:	CP006845		

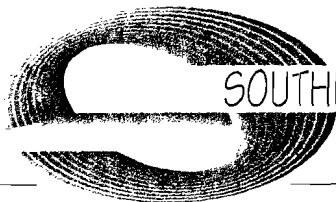
Parameter	Result	Units	Report Limit	Date	Method	Analyst
Oil and Grease	<5.0	mg/L	5	9/30/08 8:05	1664 (1)	R. Cooney

Report Approved By:

Thomas P. Murray
Thomas P. Murray, Ph.D.

~METHOD REFERENCES~

- (1) Methods for Chemical Analysis of Water and Wastes, EPA-600/4-79-020, revised March 1993, August 1993, May 1994
- (2) Standard Methods for the Examination of Water and Waste Water, 18th Edition, 1992.
- (3) Test Methods for Evaluating Solid Wastes Physical Chemical Method SW-846, 3rd Edition, Update IV December 1996.
- (4) HACH Handbook of Water Analysis, HACH Chemical Company, 1979
- (5) Methods for the Determination of Organic Compounds in Drinking Water, EPA-600/4-88/059, Revised July, 1991 August 1995



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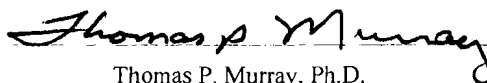
TEST RESULTS

Merichem Chemicals & Refinery
Mary Green
2701 Warrior Road
Tuscaloosa, AL 35404

Project:	Permit Renewal	Lab Number:	802032
Project Number:		Sample Number:	-02
Sample Location:	DSN001	Sample Type:	Wastewater
Sampled By:		Date Received:	9/23/08 10:20
Date/Time Collected:	9/20/08 14:30	Date Reported:	10/21/2008
Client Sample ID:	CP006845		

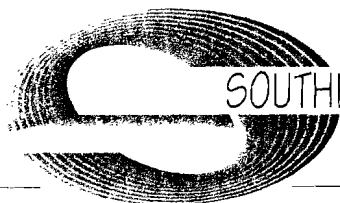
Parameter	Result	Units	Report Limit	Date	Method	Analyst
pH	7.32	su		9/23/08 10:30	150.1 (1)	A. Dixon

Report Approved By:


Thomas P. Murray, Ph.D.

~METHOD REFERENCES~

- (1) Methods for Chemical Analysis of Water and Wastes, EPA-600/4-79-020, revised March 1993, August 1993, May 1994.
- (2) Standard Methods for the Examination of Water and Waste Water, 18th Edition, 1992.
- (3) Test Methods for Evaluating Solid Wastes Physical Chemical Method SW-846, 3rd Edition, Update IV December 1996
- (4) HACH Handbook of Water Analysis, HACH Chemical Company, 1979
- (5) Methods for the Determination of Organic Compounds in Drinking Water, EPA-600/4-88/039, Revised July, 1991, August 1995



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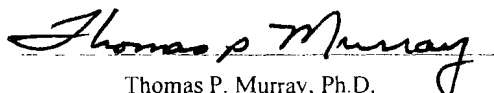
TEST RESULTS

Merichem Chemicals & Refinery
Mary Green
2701 Warrior Road
Tuscaloosa, AL 35404

Project:	Permit Renewal	Lab Number:	802032
Project Number:		Sample Number:	-03
Sample Location:	DSN001	Sample Type:	Wastewater
Sampled By:		Date Received:	9/23/08 10:20
Date/Time Collected:	9/21/08 12:30	Date Reported:	10/21/2008
Client Sample ID:	CP006846		

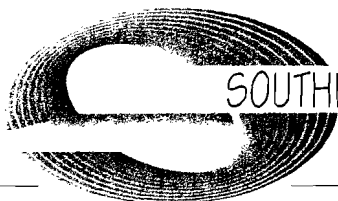
Parameter	Result	Units	Report Limit	Date	Method	Analyst
BOD-Seed	Initiated			9/23/08 12:10	5210B (2)	A. Dixon
BOD-Analysis	<2.0	mg/L	2	9/28/08 11:00	5210B (2)	M. Painter
Solids, Total Suspended	<1.0	mg/L	1	9/25/08 12:15	160.2 (1)	D. Kennedy

Report Approved By:


Thomas P. Murray, Ph.D.

~METHOD REFERENCES~

- (1) Methods for Chemical Analysis of Water and Wastes, EPA-600/4-79-020, revised March 1993, August 1993, May 1994
- (2) Standard Methods for the Examination of Water and Waste Water, 18th Edition, 1992
- (3) Test Methods for Evaluating Solid Wastes Physical Chemical Method SW-846, 3rd Edition, Update IV December 1996.
- (4) HACH Handbook of Water Analysis, HACH Chemical Company, 1979
- (5) Methods for the Determination of Organic Compounds in Drinking Water, EPA-600/4-88/039, Revised July, 1991, August 1995



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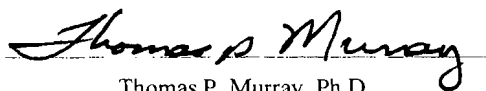
TEST RESULTS

Merichem Chemicals & Refinery
Mary Green
2701 Warrior Road
Tuscaloosa, AL 35404

Project:	Permit Renewal	Lab Number:	802032
Project Number:		Sample Number:	-04
Sample Location:	DSN001	Sample Type:	Wastewater
Sampled By:		Date Received:	9/23/08 10:20
Date/Time Collected:	9/21/08 12:30	Date Reported:	10/21/2008
Client Sample ID:	CP006846		

Parameter	Result	Units	Report Limit	Date	Method	Analyst
COD	4.0	mg/L	3	9/23/08 13:10	8000 (4)	M. Faulkner
Ammonia-N	<0.100	mg/L	0.1	9/26/08 8:30	350.3 (1)	M. Faulkner
Total Organic Carbon	3.55	mg/L	1	10/8/08 12:08	5310B (2)	TAI

Report Approved By:



Thomas P. Murray, Ph.D.

~METHOD REFERENCES~

- (1) Methods for Chemical Analysis of Water and Wastes, EPA-600/4-79-020, revised March 1993, August 1993, May 1994
- (2) Standard Methods for the Examination of Water and Waste Water, 18th Edition, 1992
- (3) Test Methods for Evaluating Solid Wastes Physical Chemical Method SW-846, 3rd Edition, Update IV December 1996.
- (4) HACH Handbook of Water Analysis, HACH Chemical Company, 1979
- (5) Methods for the Determination of Organic Compounds in Drinking Water, EPA-600/4-88/039, Revised July, 1991, August 1995

SOUTHERN ENVIRONMENTAL TESTING, INC.

3103 Northington Court

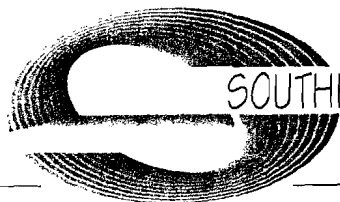
Florence, AL 35630

Ph: (256)740-5532

Fax: (256)740-5529

CHAIN-OF-CUSTODY RECORD

REFERRING CLIENT:			PROJECT NAME:			PROJECT #:		
SAMPLE SITE:			REQUESTOR:					
SAMPLED BY:			P.O. #:					
TURNAROUND:			SPECIAL INSTRUCTIONS:					
<input type="checkbox"/> NORMAL <input type="checkbox"/> RUSH								
LAB USE ONLY SAMPLE #	SAMPLE IDENTIFICATION	DATE	TIME	SAMPLE TYPE	GRAB COMP	CONTAINER TYPE	# OF CONTAINERS	SAMPLE PRESERVATION
1	000634S	11/2/03	1:00	SW	X	G	1	None
2	000634C	11/2/03	1:00	SW	X	P	1	None
3	1	11/2/03	1:00	SW	X	P	1	None
4	1	11/2/03	1:00	SW	X	P	1	None
5	1	11/2/03	1:00	SW	X	P	1	None
6	1	11/2/03	1:00	SW	X	P	1	None
7	1	11/2/03	1:00	SW	X	P	1	None
8	1	11/2/03	1:00	SW	X	P	1	None
9	1	11/2/03	1:00	SW	X	P	1	None
10	1	11/2/03	1:00	SW	X	P	1	None
11	1	11/2/03	1:00	SW	X	P	1	None
12	1	11/2/03	1:00	SW	X	P	1	None
13	1	11/2/03	1:00	SW	X	P	1	None
14	1	11/2/03	1:00	SW	X	P	1	None
15	1	11/2/03	1:00	SW	X	P	1	None
16	1	11/2/03	1:00	SW	X	P	1	None
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19	1	11/2/03	1:00	SW	X	P	1	None
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100	1	11/2/03	1:00	SW	X	P	1	None



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3103 Northington Court
Florence, Alabama 35630

(256) 740-5532
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TEST RESULTS

Merichem Chemicals & Refinery
Mary Green
2701 Warrior Road
Tuscaloosa, AL 35404

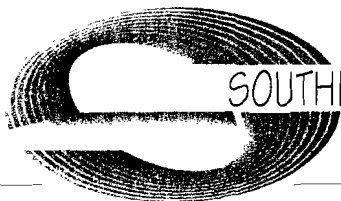
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Project Number:
Sample Location: DSN003
Sampled By: Client
Date/Time Collected: 9/16/08 10:20

Lab Number: 802001
Sample Type: Stormwater
Date/Time Received: 9/17/08 11:30
Date Reported: 10/3/2008

Sample No.	Client No.	Parameter	Result	Units	Report Limit	Date/Time	Method	Analyst
-01	CP006796	Oil and Grease	<5.0	mg/L	5	9/19/08 8:10	1664 (1)	R. Cooney
-02	CP006796	pH	8.13	su		9/17/08 14:00	150.1 (1)	D. Norton
-03	CP006796	Phenols, total	0.100	mg/L	0.005	9/22/08 16:00	420.1 (1)	M. Painter
-04	CP006796	BOD-Seed	Initiated			9/17/08 15:38	5210B (2)	D. Norton
-04	CP006796	BOD-Analysis	<2.0	mg/L	2	9/22/08 14:32	5210B (2)	D. Kennedy
-04	CP006796	Solids, Total Suspended	5.2	mg/L	1	9/22/08 10:05	160.2 (1)	D. Kennedy
-05	CP006796	COD	30.0	mg/L	3	9/23/08 13:10	8000 (4)	M. Faulkner
-06	CP006796	Total Organic Carbon	10.9	mg/L	1	9/26/08 10:23	5310C (2)	P. Schrader
-07	CP006796	Nitrogen, total	0.493	mg/L	0.1	9/23/08 12:00	4500N (2)	M. Faulkner
-07	CP006796	Nitrate-Nitrite as N	<0.0530	mg/L	0.053	9/18/08 0:41	300.1(1)	A. Dixon
-07	CP006796	Phosphorus, Total	<0.10	mg/L	0.1	9/19/08 10:00	4500P (2)	M. Faulkner
-08	CP006796	2,4-Dimethylphenol	<11.1	ug/L	11.1	9/24/08 22:05	8270C (3)	TAI
-08	CP006796	BNA Extraction	Initiated			9/22/08 15:25	3510 (3)	CDJ
-08	CP006796	Surr. Phenol-d5 (10-100%)	23	% Recover		9/24/08 22:05	8270C (3)	TAI
-08	CP006796	Surr. 2-Fluorophenol (10-100%)	38	% Recover		9/24/08 22:05	8270C (3)	TAI
-08	CP006796	Surr. 2,4,6-Tribromophenol (23-1	81	% Recover		9/24/08 22:05	8270C (3)	TAI
-09	CP006796	Naphthalene	<5.00	ug/L	5	9/18/08 23:59	8260B (3)	R. Cooney
-09	CP006796	VOA Surr, DBFM	105	% Recover		9/18/08 23:59	8260B (3)	R. Cooney
-09	CP006796	VOA Surr, Toluene-d8	98	% Recover		9/18/08 23:59	8260B (3)	R. Cooney
-09	CP006796	VOA Surr, p-BFB	98	% Recover		9/18/08 23:59	8260B (3)	R. Cooney
-10	CP006796	Sulfate	15.0	mg/L	1	9/17/08 22:46	300.1 (1)	A. Dixon
-10	CP006796	Sulfite	<1.0	mg/L	1	9/17/08 13:15	377.1 (1)	A. Dixon

~METHOD REFERENCES~

- (1) Methods for Chemical Analysis of Water and Wastes, EPA-600/4-79-020, revised March 1993, August 1993, May 1994.
- (2) Standard Methods for the Examination of Water and Waste Water, 18th Edition, 1992
- (3) Test Methods for Evaluating Solid Wastes Physical Chemical Method SW-846, 3rd Edition, Update IV December 1996
- (4) HACH Handbook of Water Analysis, HACH Chemical Company, 1979.
- (5) Methods for the Determination of Organic Compounds in Drinking Water, EPA-600/4-88/039, Revised July, 1991, August 1995.



SOUTHERN ENVIRONMENTAL TESTING, INC.

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TEST RESULTS

Merichem Chemicals & Refinery
Mary Green
2701 Warrior Road
Tuscaloosa, AL 35404

Project:	NPDES Permit Renewal	Lab Number:	802001
Project Number:		Sample Type:	Stormwater
Sample Location:	DSN003	Date/Time Received:	9/17/08 11:30
Sampled By:	Client	Date Reported:	10/3/2008
Date/Time Collected:	9/16/08 10:20		

Sample No.	Client No.	Parameter	Result	Units	Report Limit	Date/Time	Method	Analyst
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Report Approved By:

Thomas P. Murray
Thomas P. Murray, Ph.D.

~METHOD REFERENCES~

- (1) Methods for Chemical Analysis of Water and Wastes, EPA-600/4-79-020, revised March 1993, August 1993, May 1994.
- (2) Standard Methods for the Examination of Water and Waste Water, 18th Edition, 1992.
- (3) Test Methods for Evaluating Solid Wastes Physical Chemical Method SW-846, 3rd Edition, Update IV December 1996.
- (4) HACH Handbook of Water Analysis, HACH Chemical Company, 1979
- (5) Methods for the Determination of Organic Compounds in Drinking Water, EPA-600/4-88/039, Revised July, 1991, August 1995

SOUTHERN ENVIRONMENTAL TESTING, INC.

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CHAIN-OF-CUSTODY RECORD

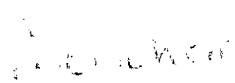
REFERRING CLIENT: Merichem			PROJECT NAME: NPDES Permit Renewal				PROJECT #:										
			SAMPLE SITE: DONORS				REQUESTOR:										
			SAMPLED BY: Client				P.O. #										
			TURNAROUND: <input type="checkbox"/> NORMAL <input type="checkbox"/> RUSH		SPECIAL INSTRUCTIONS:												
LAB USE ONLY SAMPLE #	SAMPLE IDENTIFICATION	DATE	TIME	SAMPLE TYPE	GRAB	COMP	CONTAINER TYPE	# OF CONTAINERS	SAMPLE PRESERVATION	ANALYSIS REQUESTED							
SC0001-01	AP000196	9/16/08	1020	SW	X		G	1	H ₂ SO ₄	O+G							
02	CP000196				X		P	1	None		X						
03	CP000196				X		G	1	H ₂ SO ₄			X					
04	CP000196				X		P	1	None				X				
05					X		P	1	H ₂ SO ₄					X			
06					X		P	1	H ₂ SO ₄						X		
07					X		P	1	H ₂ SO ₄							X	
RELINQUISHED BY:	DATE	TIME	RECEIVED BY:		DATE	TIME	RECEIVED FOR LAB BY:		DATE	TIME							
	9/16/08	1020							9/17/08	1130							
RELINQUISHED BY:	DATE	TIME	RECEIVED BY:		DATE	TIME	COMMENTS:										
RELINQUISHED BY:	DATE	TIME	RECEIVED BY:		DATE	TIME											
RELINQUISHED BY:	DATE	TIME	RECEIVED BY:		DATE	TIME											

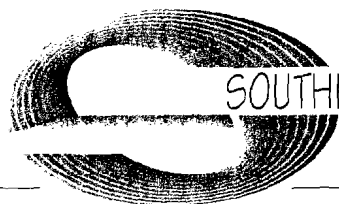
SOUTHERN ENVIRONMENTAL TESTING, INC.

3103 Northington Court
Florence, AL 35630

Ph: (256)740-5532
Fax: (256)740-5529

CHAIN-OF-CUSTODY RECORD

REFERRING CLIENT:			PROJECT NAME:			PROJECT #:			ANALYSIS REQUESTED								
<div style="text-align: center;">  </div>			SAMPLE SITE:			REQUESTOR:			<div style="display: flex; justify-content: space-between;"> <div style="writing-mode: vertical-rl; transform: rotate(180deg);">2,4-Dinitrophenol</div> <div style="writing-mode: vertical-rl; transform: rotate(180deg);">Naphthalene</div> <div style="writing-mode: vertical-rl; transform: rotate(180deg);">Sulfate, sulfate</div> </div>								
			SAMPLED BY:			P.O. #:											
			TURNAROUND:			SPECIAL INSTRUCTIONS:											
			<input type="checkbox"/> NORMAL <input type="checkbox"/> RUSH														
LAB USE ONLY SAMPLE #	SAMPLE IDENTIFICATION	DATE	TIME	SAMPLE TYPE	GRAB	COMP	CONTAINER TYPE	# OF CONTAINERS	SAMPLE PRESERVATION								
100-02	05021-96	9/10/06	12:00	5ml	X		G	1	12:00	X							
102	1	↓	↓	↓	X		G	2	12:00		X						
103	2	↓	↓	↓	X		P	1	12:00			X					
RELINQUISHED BY:	DATE	TIME	RECEIVED BY:			DATE	TIME	RECEIVED FOR LAB BY:			DATE	TIME	COMMENTS:				
RELINQUISHED BY:	DATE	TIME	RECEIVED BY:			DATE	TIME	RECEIVED FOR LAB BY:			DATE	TIME					
RELINQUISHED BY:	DATE	TIME	RECEIVED BY:			DATE	TIME	RECEIVED FOR LAB BY:			DATE	TIME					
RELINQUISHED BY:	DATE	TIME	RECEIVED BY:			DATE	TIME	RECEIVED FOR LAB BY:			DATE	TIME					



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TEST RESULTS

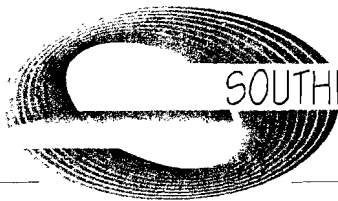
Merichem Chemicals & Refinery
Mary Green
2701 Warrior Road
Tuscaloosa, AL 35404

Project: Lab Number: 802169
Project Number: Sample Type: Stormwater
Sample Location: 006 NSW Date/Time Received: 10/8/08 13:00
Sampled By: Client Date Reported: 10/21/2008
Date/Time Collected: 10/7/08 10:06

Sample No.	Client No.	Parameter	Result	Units	Report Limit	Date/Time	Method	Analyst
-01	CP006931	Sulfate	10.4	mg/L	1	10/10/08 17:01	300.1 (1)	A. Dixon
-01	CP006931	Sulfite	<0.50	mg/L	0.5	10/10/08 13:50	377.1 (1)	J. Jennings
-02	CP006931	BOD-Seed	Initiated			10/9/08 14:42	5210B (2)	D. Kennedy
-02	CP006931	BOD-Analysis	2.3	mg/L	2	10/14/08 13:24	5210B (2)	D. Kennedy
-02	CP006931	Solids, Total Suspended	128	mg/L	1	10/10/08 11:50	160.2 (1)	D. Kennedy
-03	CP006931	pH (field)	8.30	su		10/7/08 10:06	150.1 (1)	Client
-04	CP006931	COD	81.0	mg/L	3	10/15/08 13:00	8000 (4)	M. Faulkner
-04	CP006931	Total Organic Carbon	8.9	mg/L	1	10/16/08 11:45	5310C (2)	P. Schrader
-05	CP006931	Cobalt, total	<0.0200	mg/L	0.02	10/15/08 13:39	200.7 (1)	M. Painter
-05	CP006931	Copper, total recoverable	0.0368	mg/L	0.02	10/15/08 13:13	200.7 (1)	M. Painter
-05	CP006931	Copper, total	0.0341	mg/L	0.02	10/15/08 13:39	200.7 (1)	M. Painter
-05	CP006931	Iron, total recoverable	4.37	mg/L	0.02	10/15/08 13:13	200.7 (1)	M. Painter
-05	CP006931	Magnesium, total	2.84	mg/L	0.02	10/15/08 13:39	200.7 (1)	M. Painter
-05	CP006931	Molybdenum, total	<0.0200	mg/L	0.02	10/15/08 13:39	200.7 (1)	M. Painter
-05	CP006931	Zinc, total recoverable	0.350	mg/L	0.02	10/15/08 13:13	200.7 (1)	M. Painter
-06	CP006931	Nitrogen, total	1.59	mg/L	0.1	10/16/08 12:30	4500N (2)	A. Dixon
-06	CP006931	Ammonia-N	0.163	mg/L	0.1	10/13/08 8:00	350.3 (1)	M. Faulkner
-06	CP006931	Nitrate-Nitrite as N	0.269	mg/L	0.053	10/9/08 15:44	300.1 (1)	A. Dixon
-06	CP006931	Phosphorus, Total	0.12	mg/L	0.1	10/9/08 11:00	4500P (2)	M. Faulkner

~METHOD REFERENCES~

- (1) Methods for Chemical Analysis of Water and Wastes, EPA-600/4-79-020, revised March 1993, August 1993, May 1994.
- (2) Standard Methods for the Examination of Water and Waste Water, 18th Edition, 1992.
- (3) Test Methods for Evaluating Solid Wastes Physical Chemical Method SW-346, 3rd Edition, Update IV December 1996
- (4) HACH Handbook of Water Analysis, HACH Chemical Company, 1979.
- (5) Methods for the Determination of Organic Compounds in Drinking Water, EPA-600/4-88/039, Revised July, 1991, August 1995.



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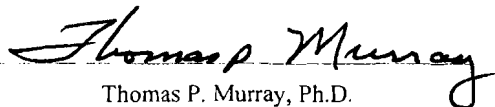
TEST RESULTS

Merichem Chemicals & Refinery
Mary Green
2701 Warrior Road
Tuscaloosa, AL 35404

Project:		Lab Number:	802169
Project Number:		Sample Type:	Stormwater
Sample Location:	006 NSW	Date/Time Received:	10/8/08 13:00
Sampled By:	Client	Date Reported:	10/21/2008
Date/Time Collected:	10/7/08 10:06		

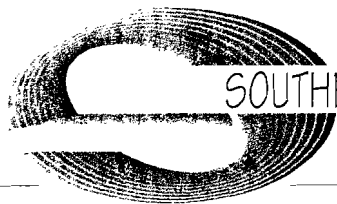
Sample No.	Client No.	Parameter	Result	Units	Report Limit	Date/Time	Method	Analyst
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Report Approved By:


Thomas P. Murray, Ph.D.

~METHOD REFERENCES~

- (1) Methods for Chemical Analysis of Water and Wastes, EPA-600/4-79-020, revised March 1993, August 1993, May 1994.
- (2) Standard Methods for the Examination of Water and Waste Water, 18th Edition, 1992
- (3) Test Methods for Evaluating Solid Wastes Physical Chemical Method SW-846, 3rd Edition, Update IV December 1996.
- (4) HACH Handbook of Water Analysis, HACH Chemical Company, 1979.
- (5) Methods for the Determination of Organic Compounds in Drinking Water, EPA-600/4-88/039, Revised July, 1991, August 1995



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TEST RESULTS

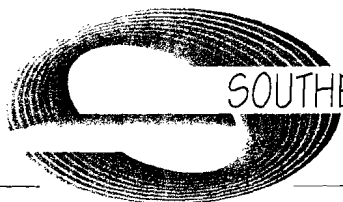
Merichem Chemicals & Refinery
Mary Green
2701 Warrior Road
Tuscaloosa, AL 35404

Project:		Lab Number:	802170
Project Number:		Sample Type:	Stormwater
Sample Location:	006 NSW	Date/Time Received:	10/8/08 13:00
Sampled By:	Client	Date Reported:	10/21/2008
Date/Time Collected:	10/7/08 10:06		

Sample No.	Client No.	Parameter	Result	Units	Report Limit	Date/Time	Method	Analyst
-01	CP006932	BOD-Seed	Initiated			10/9/08 14:48	5210B (2)	D. Kennedy
-01	CP006932	BOD-Analysis	2.4	mg/L	2	10/14/08 13:34	5210B (2)	D. Kennedy
-01	CP006932	Solids, Total Suspended	140	mg/L	1	10/10/08 11:50	160.2 (1)	D. Kennedy
-02	CP006932	Cobalt, total	<0.0200	mg/L	0.02	10/15/08 13:42	200.7 (1)	M. Painter
-02	CP006932	Copper, total	0.0517	mg/L	0.02	10/15/08 13:42	200.7 (1)	M. Painter
-02	CP006932	Copper, total recoverable	0.0556	mg/L	0.02	10/15/08 13:17	200.7 (1)	M. Painter
-02	CP006932	Iron, total recoverable	6.46	mg/L	0.02	10/15/08 13:17	200.7 (1)	M. Painter
-02	CP006932	Magnesium, total	4.76	mg/L	0.02	10/15/08 13:42	200.7 (1)	M. Painter
-02	CP006932	Molybdenum, total	<0.0200	mg/L	0.02	10/15/08 13:42	200.7 (1)	M. Painter
-02	CP006932	Zinc, total recoverable	0.500	mg/L	0.02	10/15/08 13:17	200.7 (1)	M. Painter
-03	CP006932	Sulfate	9.38	mg/L	0.1	10/9/08 16:07	300.1 (1)	A. Dixon
-03	CP006932	Sulfite	<0.50	mg/L	0.5	10/10/08 13:55	377.1 (1)	J. Jennings
-04	CP006932	COD	93.0	mg/L	3	10/15/08 13:00	8000 (4)	M. Faulkner
-05	CP006932	Nitrogen, total	1.38	mg/L	0.1	10/16/08 12:30	4500N (2)	A. Dixon
-05	CP006932	Ammonia-N	<0.100	mg/L	0.1	10/13/08 8:00	350.3 (1)	M. Faulkner
-05	CP006932	Nitrate-Nitrite as N	0.221	mg/L	0.053	10/9/08 16:07	300.1 (1)	A. Dixon
-05	CP006932	Phosphorus, Total	<0.10	mg/L	0.1	10/9/08 11:00	4500P (2)	M. Faulkner
-06	CP006932	Naphthalene	<5.00	ug/L	5	10/15/08 23:21	8260B (3)	R. Cooney
-06	CP006932	VOA Surr, DBFM	97	% Recover		10/15/08 23:21	8260B (3)	R. Cooney
-06	CP006932	VOA Surr, Toluene-d8	102	% Recover		10/15/08 23:21	8260B (3)	R. Cooney
-06	CP006932	VOA Surr, p-BFB	102	% Recover		10/15/08 23:21	8260B (3)	R. Cooney

~METHOD REFERENCES~

- (1) Methods for Chemical Analysis of Water and Wastes, EPA-600/4-79-020, revised March 1993, August 1993, May 1994.
- (2) Standard Methods for the Examination of Water and Waste Water, 18th Edition, 1992.
- (3) Test Methods for Evaluating Solid Wastes Physical Chemical Method SW-846, 3rd Edition, Update IV December 1996
- (4) HACH Handbook of Water Analysis, HACH Chemical Company, 1979
- (5) Methods for the Determination of Organic Compounds in Drinking Water, EPA-600/4-88/039, Revised July, 1991, August 1995.



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TEST RESULTS

Merichem Chemicals & Refinery
Mary Green
2701 Warrior Road
Tuscaloosa, AL 35404

Project:		Lab Number:	802170
Project Number:		Sample Type:	Stormwater
Sample Location:	006 NSW	Date/Time Received:	10/8/08 13:00
Sampled By:	Client	Date Reported:	10/21/2008
Date/Time Collected:	10/7/08 10:06		

Sample No.	Client No.	Parameter	Result	Units	Report Limit	Date/Time	Method	Analyst
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Report Approved By:

Thomas P. Murray
Thomas P. Murray, Ph.D.

~METHOD REFERENCES~



- (1) Methods for Chemical Analysis of Water and Wastes, EPA-600/4-79-020, revised March 1993, August 1993, May 1994.
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- (4) HACH Handbook of Water Analysis, HACH Chemical Company, 1979
- (5) Methods for the Determination of Organic Compounds in Drinking Water. EPA-600/4-88/039. Revised July, 1991, August 1995

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3103 Northington Court
Florence, AL 35630

Ph: (256)740-5532
Fax: (256)740-5529

CHAIN-OF-CUSTODY RECORD

REFERRING CLIENT:			PROJECT NAME:			PROJECT #:										
			SAMPLE SITE:			REQUESTOR:										
			SAMPLED BY:			P.O. #:										
			TURNAROUND:			SPECIAL INSTRUCTIONS:										
			<input type="checkbox"/> NORMAL <input type="checkbox"/> RUSH													
LAB USE ONLY SAMPLE #	SAMPLE IDENTIFICATION	DATE	TIME	SAMPLE TYPE	GRAB	COMP	CONTAINER TYPE	# OF CONTAINERS	SAMPLE PRESERVATION	ANALYSIS REQUESTED						
1	0700-30	11/10/08	10:00	Soil	X		Q	1	0.5m	X						
2	0700-30						Q	1	0.5m		X					
3	0700-31						Q	1	0.5m			X				
4							Q	1	0.5m				X			
5							Q	1	0.5m					X		
6							Q	1	0.5m						X	
7							Q	1	0.5m							X
8	0700-32						Q	1	0.5m				X			
9							Q	1	0.5m							X
10							Q	1	0.5m							
RELINQUISHED BY:		DATE	TIME	RECEIVED BY:		DATE	TIME	RECEIVED FOR LAB BY:		DATE	TIME					
RELINQUISHED BY:		DATE	TIME	RECEIVED BY:		DATE	TIME	COMMENTS: 								
RELINQUISHED BY:		DATE	TIME	RECEIVED BY:		DATE	TIME									
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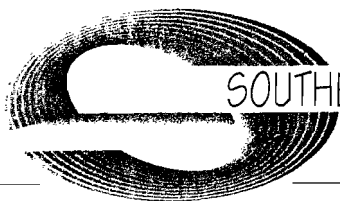
SOUTHERN ENVIRONMENTAL TESTING, INC.

3103 Northington Court
Florence, AL 35630

Ph: (256)740-5532
Fax: (256)740-5529

CHAIN-OF-CUSTODY RECORD

REFERRING CLIENT: <i>Nigerichem</i>			PROJECT NAME:				PROJECT #:									
			SAMPLE SITE: <i>Don't know</i>				REQUESTOR:									
			SAMPLED BY:				P.O. #:									
			TURNAROUND: <input type="checkbox"/> NORMAL <input type="checkbox"/> RUSH				SPECIAL INSTRUCTIONS:									
LAB USE ONLY SAMPLE #	SAMPLE IDENTIFICATION	DATE	TIME	SAMPLE TYPE	GRAB	COMP	CONTAINER TYPE	# OF CONTAINERS	SAMPLE PRESERVATION	ANALYSIS REQUESTED						
<i>0012-07-10</i>	<i>000013</i>	<i>10/1/08</i>	<i>11:12</i>	<i>SW</i>	<i>X</i>		<i>F</i>	<i>1</i>	<i>10-500</i>	<i>X</i>						
<i>0012-07-10</i>	<i>000014</i>	<i>10/1/08</i>			<i>X</i>		<i>F</i>		<i>10-500</i>	<i>X</i>						
<i>0012-07-10</i>	<i>000015</i>				<i>X</i>		<i>F</i>		<i>10-500</i>	<i>X</i>						
	<i>000016</i>				<i>X</i>		<i>F</i>		<i>10-500</i>	<i>X</i>						
<i>0012-07-10</i>	<i>000017</i>	<i>10/1/08</i>	<i>11:12</i>	<i>SW</i>	<i>X</i>		<i>G</i>	<i>1</i>	<i>10-500</i>							
<i>0012-07-10</i>	<i>000018</i>	<i>10/1/08</i>	<i>11:12</i>	<i>SW</i>	<i>X</i>		<i>G</i>	<i>3</i>	<i>10-500</i>							
RELINQUISHED BY:	DATE	TIME	RECEIVED BY:				DATE	TIME	RECEIVED FOR LAB BY:		DATE	TIME				
<i>[Signature]</i>	<i>10/1/08</i>	<i>11:12</i>							<i>[Signature]</i>		<i>10/1/08</i>	<i>1300</i>				
RELINQUISHED BY:	DATE	TIME	RECEIVED BY:				DATE	TIME	COMMENTS: <i>Samples on ice</i> <i>and samples were</i> <i>analyzed</i>							
RELINQUISHED BY:	DATE	TIME	RECEIVED BY:				DATE	TIME								
RELINQUISHED BY:	DATE	TIME	RECEIVED BY:				DATE	TIME								



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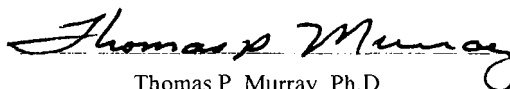
TEST RESULTS

Merichem Chemicals & Refinery
Mary Green
2701 Warrior Road
Tuscaloosa, AL 35404

Project: Lab Number: 802173
Project Number: Sample Type: Stormwater
Sample Location: DSN007 Date/Time Received: 10/8/08 13:00
Sampled By: Client Date Reported: 10/21/2008
Date/Time Collected: 10/7/08 11:23

Sample No.	Client No.	Parameter	Result	Units	Report Limit	Date/Time	Method	Analyst
-01	CP006934	Oil and Grease	<5.0	mg/L	5	10/13/08 8:50	1664 (1)	R. Cooney
-02	CP006934	Phenols, total	0.100	mg/L	0.005	10/16/08 14:50	420.1 (1)	M. Painter
-03	CP006934	Naphthalene	<5.00	ug/L	5	10/16/08 0:04	8260B (3)	R. Cooney
-03	CP006934	VOA Surr, DBFM	94	% Recover		10/16/08 0:04	8260B (3)	R. Cooney
-03	CP006934	VOA Surr, Toluene-d8	101	% Recover		10/16/08 0:04	8260B (3)	R. Cooney
-03	CP006934	VOA Surr, p-BFB	97	% Recover		10/16/08 0:04	8260B (3)	R. Cooney

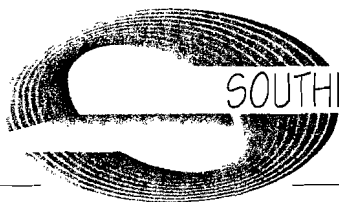
Report Approved By:



Thomas P. Murray, Ph.D.

~METHOD REFERENCES~

- (1) Methods for Chemical Analysis of Water and Wastes, EPA-600/4-79-020, revised March 1993, August 1993, May 1994
- (2) Standard Methods for the Examination of Water and Waste Water, 18th Edition, 1992
- (3) Test Methods for Evaluating Solid Wastes Physical Chemical Method SW-846, 3rd Edition, Update IV December 1996
- (4) HACH Handbook of Water Analysis, HACH Chemical Company, 1979
- (5) Methods for the Determination of Organic Compounds in Drinking Water, EPA-600/4-88/039, Revised July, 1991, August 1995



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TEST RESULTS

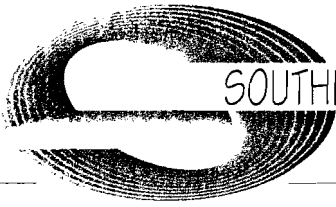
Merichem Chemicals & Refinery
Mary Green
2701 Warrior Road
Tuscaloosa, AL 35404

Project:		Lab Number:	802174
Project Number:		Sample Type:	Stormwater
Sample Location:	DSN007	Date/Time Received:	10/8/08 13:00
Sampled By:	Client	Date Reported:	10/21/2008
Date/Time Collected:	10/7/08 11:23		

Sample No.	Client No.	Parameter	Result	Units	Report Limit	Date/Time	Method	Analyst
-01	CP006935	Sulfate	9.64	mg/L	1	10/10/08 17:24	300.1 (1)	A. Dixon
-01	CP006935	Sulfite	<0.50	mg/L	0.5	10/10/08 14:20	377.1 (1)	J. Jennings
-02	CP006935	BOD-Seed	Initiated			10/9/08 14:53	5210B (2)	D. Kennedy
-02	CP006935	BOD-Analysis	5.3	mg/L	2	10/14/08 13:46	5210B (2)	D. Kennedy
-02	CP006935	Solids, Total Suspended	171	mg/L	1	10/10/08 11:50	160.2 (1)	D. Kennedy
-03	CP006935	pH (field)	6.80	su		10/7/08 11:23	150.1 (1)	Client
-04	CP006935	COD	57.0	mg/L	3	10/9/08 12:00	8000 (4)	M. Faulkner
-04	CP006935	Total Organic Carbon	<1.0	mg/L	1	10/16/08 11:45	5310C (2)	P. Schrader
-05	CP006935	Nitrogen, total	7.56	mg/L	1	10/16/08 12:30	4500N (2)	A. Dixon
-05	CP006935	Ammonia-N	1.51	mg/L	1	10/13/08 8:00	350.3 (1)	M. Faulkner
-05	CP006935	Nitrate-Nitrite as N	0.708	mg/L	0.053	10/9/08 16:30	300.1 (1)	A. Dixon
-05	CP006935	Phosphorus, Total	0.29	mg/L	0.1	10/9/08 11:00	4500P (2)	M. Faulkner
-06	CP006935	Cobalt, total	0.0774	mg/L	0.02	10/15/08 13:46	200.7 (1)	M. Painter
-06	CP006935	Copper, total recoverable	0.228	mg/L	0.02	10/15/08 13:58	200.7 (1)	M. Painter
-06	CP006935	Iron, total recoverable	25.0	mg/L	0.02	10/15/08 13:58	200.7 (1)	M. Painter
-06	CP006935	Magnesium, total	10.1	mg/L	0.02	10/15/08 13:46	200.7 (1)	M. Painter
-06	CP006935	Molybdenum, total	<0.0200	mg/L	0.02	10/15/08 13:46	200.7 (1)	M. Painter
-06	CP006935	Zinc, total recoverable	3.57	mg/L	0.02	10/15/08 13:58	200.7 (1)	M. Painter

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- (1) Methods for Chemical Analysis of Water and Wastes, EPA-600/4-79-020, revised March 1993, August 1993, May 1994
- (2) Standard Methods for the Examination of Water and Waste Water, 18th Edition, 1992
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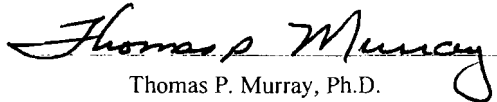
TEST RESULTS

Merichem Chemicals & Refinery
Mary Green
2701 Warrior Road
Tuscaloosa, AL 35404

Project:		Lab Number:	802174
Project Number:		Sample Type:	Stormwater
Sample Location:	DSN007	Date/Time Received:	10/8/08 13:00
Sampled By:	Client	Date Reported:	10/21/2008
Date/Time Collected:	10/7/08 11:23		

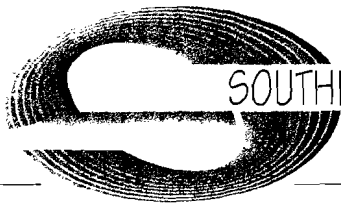
Sample No.	Client No.	Parameter	Result	Units	Report Limit	Date/Time	Method	Analyst
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Report Approved By:


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- (1) Methods for Chemical Analysis of Water and Wastes, EPA-600/4-79-020, revised March 1993, August 1993, May 1994
- (2) Standard Methods for the Examination of Water and Waste Water, 18th Edition, 1992.
- (3) Test Methods for Evaluating Solid Wastes Physical Chemical Method SW-846, 3rd Edition, Update IV December 1996.
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TEST RESULTS

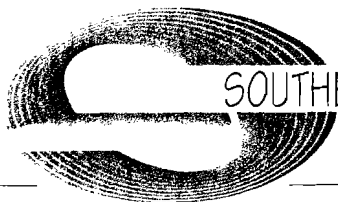
Merichem Chemicals & Refinery
Mary Green
2701 Warrior Road
Tuscaloosa, AL 35404

Project:		Lab Number:	802175
Project Number:		Sample Type:	Stormwater
Sample Location:	DSN007	Date/Time Received:	10/8/08 13:00
Sampled By:	Client	Date Reported:	10/21/2008
Date/Time Collected:	10/7/08 11:23		

Sample No.	Client No.	Parameter	Result	Units	Report Limit	Date/Time	Method	Analyst
-01	CP006936	BOD-Seed	Initiated			10/9/08 15:00	5210B (2)	D. Kennedy
-01	CP006936	BOD-Analysis	4.6	mg/L	2	10/14/08 13:57	5210B (2)	D. Kennedy
-01	CP006936	Solids, Total Suspended	40.0	mg/L	1	10/10/08 11:50	160.2 (1)	D. Kennedy
-02	CP006936	Cobalt, total	0.0358	mg/L	0.02	10/15/08 12:54	200.7 (1)	M. Painter
-02	CP006936	Copper, total recoverable	0.0867	mg/L	0.02	10/15/08 14:02	200.7 (1)	M. Painter
-02	CP006936	Iron, total recoverable	6.63	mg/L	0.02	10/15/08 14:02	200.7 (1)	M. Painter
-02	CP006936	Magnesium, total	3.52	mg/L	0.02	10/15/08 12:54	200.7 (1)	M. Painter
-02	CP006936	Molybdenum, total	<0.0200	mg/L	0.02	10/15/08 12:54	200.7 (1)	M. Painter
-02	CP006936	Zinc, total recoverable	1.50	mg/L	0.02	10/15/08 14:02	200.7 (1)	M. Painter
-03	CP006936	Sulfate	11.5	mg/L	1	10/10/08 17:47	300.1 (1)	A. Dixon
-03	CP006936	Sulfite	<0.50	mg/L	0.5	10/10/08 14:40	377.1 (1)	J. Jennings
-04	CP006936	Naphthalene	<5.00	ug/L	5	10/16/08 0:47	8260B (3)	R. Cooney
-04	CP006936	VOA Surr, DBFM	90	% Recover		10/16/08 0:47	8260B (3)	R. Cooney
-04	CP006936	VOA Surr, Toluene-d8	102	% Recover		10/16/08 0:47	8260B (3)	R. Cooney
-04	CP006936	VOA Surr, p-BFB	104	% Recover		10/16/08 0:47	8260B (3)	R. Cooney
-05	CP006936	COD	265	mg/L	3	10/15/08 13:00	8000 (4)	M. Faulkner
-06	CP006936	Nitrogen, total	4.97	mg/L	0.1	10/16/08 12:30	4500N (2)	A. Dixon
-06	CP006936	Ammonia-N	1.62	mg/L	1	10/13/08 8:00	350.3 (1)	M. Faulkner
-06	CP006936	Nitrate-Nitrite as N	0.888	mg/L	0.053	10/9/08 16:53	300.1 (1)	A. Dixon
-06	CP006936	Phosphorus, Total	<0.10	mg/L	0.1	10/9/08 11:00	4500P (2)	M. Faulkner

~METHOD REFERENCES~

- (1) Methods for Chemical Analysis of Water and Wastes, EPA-600/4-79-020, revised March 1993, August 1993, May 1994.
- (2) Standard Methods for the Examination of Water and Waste Water, 18th Edition, 1992
- (3) Test Methods for Evaluating Solid Wastes Physical Chemical Method SW-846, 3rd Edition, Update IV December 1996.
- (4) HACH Handbook of Water Analysis, HACH Chemical Company, 1979.
- (5) Methods for the Determination of Organic Compounds in Drinking Water, EPA-600/4-88/039, Revised July, 1991, August 1995



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TEST RESULTS

Merichem Chemicals & Refinery
Mary Green
2701 Warrior Road
Tuscaloosa, AL 35404

Project:		Lab Number:	802175
Project Number:		Sample Type:	Stormwater
Sample Location:	DSN007	Date/Time Received:	10/8/08 13:00
Sampled By:	Client	Date Reported:	10/21/2008
Date/Time Collected:	10/7/08 11:23		

Sample No.	Client No.	Parameter	Result	Units	Report Limit	Date/Time	Method	Analyst
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Report Approved By:

Thomas P. Murray
Thomas P. Murray, Ph.D.

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- (1) Methods for Chemical Analysis of Water and Wastes, EPA-600/4-79-020, revised March 1993, August 1993, May 1994
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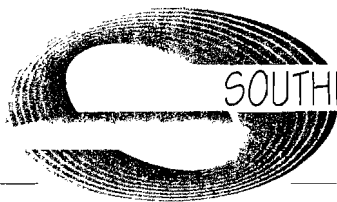
Florence, AL 35630

Ph: (256)740-5532

Fax: (256)740-5529

CHAIN-OF-CUSTODY RECORD

REFERRING CLIENT: Hatchem			PROJECT NAME:				PROJECT #:				<table border="1"> <thead> <tr> <th colspan="7">ANALYSIS REQUESTED</th> </tr> </thead> <tbody> <tr> <td></td><td></td><td></td><td></td><td></td><td></td><td></td> </tr> <tr> <td></td><td></td><td></td><td></td><td></td><td></td><td></td> </tr> <tr> <td></td><td></td><td></td><td></td><td></td><td></td><td></td> </tr> </tbody> </table>							ANALYSIS REQUESTED																											
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SAMPLED BY:				P.O. #																																									
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LAB USE ONLY SAMPLE #	SAMPLE IDENTIFICATION	DATE	TIME	SAMPLE TYPE	GRAB	COMP	CONTAINER TYPE	# OF CONTAINERS	SAMPLE PRESERVATION																																				
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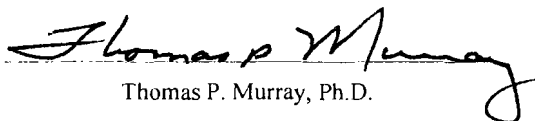
TEST RESULTS

Merichem Chemicals & Refinery
Mary Green
2701 Warrior Road
Tuscaloosa, AL 35404

Project: Lab Number: 802168
Project Number: Sample Type: Stormwater
Sample Location: 006 NSW Date/Time Received: 10/8/08 13:00
Sampled By: Client Date Reported: 10/21/2008
Date/Time Collected: 10/7/08 10:06

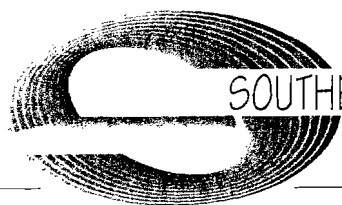
Sample No.	Client No.	Parameter	Result	Units	Report Limit	Date/Time	Method	Analyst
-01	CP006930	Oil and Grease	<5.0	mg/L	5	10/13/08 8:50	1664 (1)	R. Cooney
-02	CP006930	Phenols, total	0.0500	mg/L	0.005	10/16/08 14:50	420.1 (1)	M. Painter
-03	CP006930	Naphthalene	<5.00	ug/L	5	10/15/08 22:39	8260B (3)	R. Cooney
-03	CP006930	VOA Surr, DBFM	99	% Recover		10/15/08 22:39	8260B (3)	R. Cooney
-03	CP006930	VOA Surr, Toluene-d8	100	% Recover		10/15/08 22:39	8260B (3)	R. Cooney
-03	CP006930	VOA Surr, p-BFB	101	% Recover		10/15/08 22:39	8260B (3)	R. Cooney

Report Approved By:


Thomas P. Murray, Ph.D.

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- (1) Methods for Chemical Analysis of Water and Wastes, EPA-600/4-79-020, revised March 1993, August 1993, May 1994
- (2) Standard Methods for the Examination of Water and Waste Water, 18th Edition, 1992.
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TEST RESULTS

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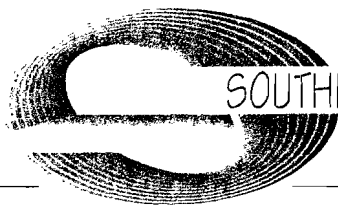
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Project Number: Sample Type: Stormwater
Sample Location: DSN008 Date/Time Received: 10/8/08 13:00
Sampled By: Client Date Reported: 10/21/2008
Date/Time Collected: 10/7/08 8:42

Sample No.	Client No.	Parameter	Result	Units	Report Limit	Date/Time	Method	Analyst
-01	CP006927	Oil and Grease	<5.0	mg/L	5	10/13/08 8:50	1664 (1)	R. Cooney
-02	CP006927	Phenols, total	0.0600	mg/L	0.005	10/16/08 14:50	420.1 (1)	M. Painter
-03	CP006927	BOD-Seed	Initiated			10/8/08 15:20	5210B (2)	R. Cooney
-03	CP006927	BOD-Analysis	12.2	mg/L	2	10/13/08 13:52	5210B (2)	D. Kennedy
-03	CP006927	Solids, Total Suspended	18.0	mg/L	1	10/10/08 11:50	160.2 (1)	D. Kennedy
-04	CP006927	pH (field)	6.60	su		10/7/08 8:42	150.1 (1)	Client
-05	CP006927	Sulfate	14.7	mg/L	1	10/10/08 16:38	300.1 (1)	A. Dixon
-05	CP006927	Sulfite	<0.50	mg/L	0.5	10/10/08 13:40	377.1 (1)	J. Jennings
-06	CP006927	COD	64.0	mg/L	3	10/15/08 13:00	8000 (4)	M. Faulkner
-06	CP006927	Total Organic Carbon	12.1	mg/L	1	10/16/08 11:45	5310C (2)	P. Schrader
-07	CP006927	Nitrogen, total	1.85	mg/L	0.1	10/16/08 12:30	4500N (2)	A. Dixon
-07	CP006927	Ammonia-N	0.173	mg/L	0.1	10/13/08 8:00	350.3 (1)	M. Faulkner
-07	CP006927	Nitrate-Nitrite as N	0.480	mg/L	0.053	10/9/08 15:21	300.1 (1)	A. Dixon
-07	CP006927	Phosphorus, Total	<0.10	mg/L	0.1	10/9/08 11:00	4500P (2)	M. Faulkner
-08	CP006927	Cobalt, total	<0.0200	mg/L	0.02	10/15/08 13:24	200.7 (1)	M. Painter
-08	CP006927	Copper, total	0.0269	mg/L	0.02	10/15/08 13:24	200.7 (1)	M. Painter
-08	CP006927	Copper, total recoverable	0.0259	mg/L	0.02	10/15/08 12:53	200.7 (1)	M. Painter
-08	CP006927	Iron, total recoverable	0.616	mg/L	0.02	10/15/08 12:53	200.7 (1)	M. Painter
-08	CP006927	Magnesium, total	0.783	mg/L	0.02	10/15/08 13:24	200.7 (1)	M. Painter
-08	CP006927	Molybdenum, total	<0.0200	mg/L	0.02	10/15/08 13:24	200.7 (1)	M. Painter
-08	CP006927	Zinc, total recoverable	0.830	mg/L	0.02	10/15/08 12:53	200.7 (1)	M. Painter
-09	CP006927	Naphthalene	<5.00	ug/L	5	10/15/08 21:56	8260B (3)	R. Cooney
-09	CP006927	VOA Surr, DBFM	97	% Recover		10/15/08 21:56	8260B (3)	R. Cooney

Page 1 of 2

~METHOD REFERENCES~

- (1) Methods for Chemical Analysis of Water and Wastes, EPA-600/4-79-020, revised March 1993, August 1993, May 1994
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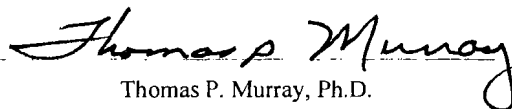
TEST RESULTS

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Mary Green
2701 Warrior Road
Tuscaloosa, AL 35404

Project:	Lab Number:	802167
Project Number:	Sample Type:	Stormwater
Sample Location:	Date/Time Received:	10/8/08 13:00
Sampled By:	Date Reported:	10/21/2008
Date/Time Collected:		10/7/08 8:42

Sample No.	Client No.	Parameter	Result	Units	Report Limit	Date/Time	Method	Analyst
-09	CP006927	VOA Surr, Toluene-d8	103	% Recover		10/15/08 21:56	8260B (3)	R. Cooney
-09	CP006927	VOA Surr, p-BFB	103	% Recover		10/15/08 21:56	8260B (3)	R. Cooney

Report Approved By:


Thomas P. Murray, Ph.D.

~METHOD REFERENCES~

- (1) Methods for Chemical Analysis of Water and Wastes, EPA-600/4-79-020, revised March 1993, August 1993, May 1994.
- (2) Standard Methods for the Examination of Water and Waste Water, 18th Edition, 1992
- (3) Test Methods for Evaluating Solid Wastes Physical Chemical Method SW-846, 3rd Edition, Update IV December 1996
- (4) HACH Handbook of Water Analysis, HACH Chemical Company, 1979
- (5) Methods for the Determination of Organic Compounds in Drinking Water EPA-600/4-88/039, Revised July, 1991, August 1995

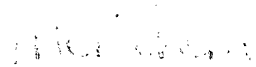
SOUTHERN ENVIRONMENTAL TESTING, INC.

3103 Northington Court
Florence, AL 35630

Ph: (256)740-5532

Fax: (256)740-5529

CHAIN-OF-CUSTODY RECORD

REFERRING CLIENT:				PROJECT NAME:				PROJECT #:				ANALYSIS REQUESTED						
<div style="text-align: center;">  </div>				SAMPLE SITE:				REQUESTOR:				MAG	PC	TSP	VOC	SVOC	MHC	MPC
				SAMPLED BY:				P.O. #:										
				TURNAROUND:				SPECIAL INSTRUCTIONS:										
				<input type="checkbox"/> NORMAL <input type="checkbox"/> RUSH														
LAB USE ONLY SAMPLE #	SAMPLE IDENTIFICATION	DATE	TIME	SAMPLE TYPE	GRAB	COMP	CONTAINER TYPE	# OF CONTAINERS	SAMPLE PRESERVATION									
1	10/10/02	10/10/02	10:00	Soil			100ml	1	None									
2				Soil			100ml	1	None									
3				Soil			100ml	1	None									
4				Soil			100ml	1	None									
5				Soil			100ml	1	None									
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9				Soil			100ml	1	None									
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RELINQUISHED BY:	DATE	TIME	RECEIVED BY:	DATE	TIME	RECEIVED FOR LAB BY:	DATE	TIME
	10/10/02	10:00					10/10/02	10:00
RELINQUISHED BY:	DATE	TIME	RECEIVED BY:	DATE	TIME	COMMENTS:		
RELINQUISHED BY:	DATE	TIME	RECEIVED BY:	DATE	TIME			
RELINQUISHED BY:	DATE	TIME	RECEIVED BY:	DATE	TIME			

OUTER ENVIRONMENTAL TESTING, INC.

3103 Northington Court
Florence, AL 35630

Ph: (256)740-5532
Fax: (256)740-5529

CHAIN-OF-CUSTODY RECORD

REFERRING CLIENT: <i>Hydrochem</i>				PROJECT NAME:			PROJECT #:			ANALYSIS REQUESTED <i>Negative</i>						
				SAMPLE SITE: <i>DONOR</i>			REQUESTOR:									
				SAMPLED BY: <i>Client</i>			P.O. #:									
				TURNAROUND: <input type="checkbox"/> NORMAL <input type="checkbox"/> RUSH			SPECIAL INSTRUCTIONS:									
LAB USE ONLY SAMPLE #	SAMPLE IDENTIFICATION	DATE	TIME	SAMPLE TYPE	GRAB	COMP	CONTAINER TYPE	# OF CONTAINERS	SAMPLE PRESERVATION							
<i>7-01</i>	<i>1800072</i>	<i>10/1/02</i>	<i>12:42</i>	<i>2</i>	<i>X</i>		<i>2</i>	<i>1</i>	<i>1</i>	<i>X</i>						
RELINQUISHED BY:		DATE	TIME	RECEIVED BY:			DATE	TIME	RECEIVED FOR LAB BY:		DATE	TIME				
									<i>Almond</i>		<i>10/1/02</i>	<i>12:42</i>				
RELINQUISHED BY:		DATE	TIME	RECEIVED BY:			DATE	TIME	COMMENTS: <i>Samples On Rec</i> <i>These samples are being held</i> <i>in a separate</i> <i>box</i>							
RELINQUISHED BY:		DATE	TIME	RECEIVED BY:			DATE	TIME								
RELINQUISHED BY:		DATE	TIME	RECEIVED BY:			DATE	TIME								

**NPDES & SID Fee Sheet
Municipal, Industrial and Mining**

Master ID No: 0000008281
 Applicant: Merichem Company
 Contact: Rickey Vickers
 Mailing Address: 2701 Warrior Road
Tuscaloosa, AL 35404
 County: Tuscaloosa
 Facility: Merichem Company
 Location: 2701 Warrior Road
 Facility City: Tuscaloosa
 Facility/Permit No: AL0025330
 Application Receive Date: September 17, 2010

ADDITIVE FEES:

Modeling with Data Collection (10 Stations)	\$50,325
Modeling with Data Collection (5 Stations)	\$41,095
Modeling - Desktop	\$ 4,045
Review of Model Performed by Others	\$ 2,255
Seasonal Limits (per additional Season)	\$ 4,045
Biomonitoring & Toxicity Limits	\$ 565
316b Phase I, II, & III Facilities (Permit Issuance/Re-Issuance Modification)	\$ 1,815
Review Comp Demo Study [(316b Phase I (Track 2) & Phase II (Alt 2, 3, 4, 5)]	\$18,920
Public Hearing	\$ 3,945
Green Field Fee	\$ 895

Entered to Permit Tracking: _____
 By: _____
 Total Fee Due: \$1460.00, 1460.00
 Amount Submitted with Appl: \$375.00, 1085.00
 Amount to be Billed: \$0.00
 Date and Amt Received: _____
 Amount to be Refunded: \$ _____
 Prepared by: Samantha Sims
 Reviewed by: 24

SCANNED

MAY 05 2012

Base Application	Initial Issuance Reissuance or Modification (effluent limit change) (injection zone change or compatibility study)	Modification (No effluent limit change) (No injection zone change or no compatibility study)	Fee Total
Action Type: Minor Modification with fee			
Payment Type: Water NPDES Industrial Minor Fee, Water NPDES Industrial Minor Fee			
	\$1460.00	1460.00	
Major Industrial Discharger	\$9,995	\$2,190	
Minor Industrial Discharger	\$3,120	\$1,735	
Commercial/Industrial General	\$770	\$ 445	
Major Municipal & Private	\$3,925	\$1,820	
Minor Municipal & Private & Water Treatment	\$2,385	\$1,250	
Municipal Storm Water (MS-4)	\$3,925	\$1,820	
Municipal & Private Sludge Only	\$1,260	\$ 850	
Minor NPDES Modification	- - - -	\$ 445	
SID	\$1,800	\$990	
SID with EPA established Categorical Effluent Guidelines	\$2,040	\$1,225	
Name Change/Transfer	\$ 445	- - - -	
Mineral/Resource Extraction	\$3,235	\$1,890	
Mining, Storage Transloading, Dry Processing			
Wet Preparation, Processing, Beneficiation	\$3,810	\$2,190	
Coalbed Methane	\$3,810	\$2,190	